5895

PROJECT SPECIFIC PLAN FOR PREDESIGN OF AREA 6 SUBAREAS 3 AND 4 (SUPPLEMENT TO 20300-PSP-0011)

DEMOLITION, SOIL AND DISPOSAL PROJECT

FERNALD CLOSURE PROJECT
FERNALD, OHIO

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U.S. DEPARTMENT OF ENERGY

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REVISION 1

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LIST OF ACRONYMS AND ABBREVIATIONS

ASL	analytical support level
BSL	Biodenitrification Surge Lagoon
ccpm	corrected counts per minute
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COC	constituent of concern
DOE	U.S. Department of Energy
DQO	Data Quality Objectives
EMS	Excavation Monitoring System
FCP	Fernald Closure Project
FRL	final remediation level
GC	gas chromatograph
GFAA	graphite furnace atomic absorption
GPC	gas proportional counter
HPGe	high-purity germanium (detector)
ICP-OES	inductively coupled plasma-optical emission spectroscopy
LSC	liquid scintillation counter
LSP	Lime Sludge Pond
MDL	minimum detection level
mg/kg	milligrams per kilogram
MSL	mean sea level
NaI	sodium iodide
OMTA	OSDF Material Transfer Area
OSDF	On-Site Disposal Facility
OU	Operable Unit
pCi/g	picoCuries per gram
PID	photoionization detector
PSP	Project Specific Plan
RI/FS	Remedial Investigation/Feasibility Study
RSS	Radiation Scanning System
RTRAK	Real-Time Radiation Tracking System
RWP	Radiological Work Permit
SCQ	Sitewide CERCLA Quality Assurance Project Plan
SEP	Sitewide Excavation Plan
SP	Soil Pile
SWL	Solid Waste Landfill
TAL	Target Analyte List
V/FCN	Variance/Field Change Notice
WAC	Waste Acceptance Criteria

1.0 INTRODUCTION

This Project Specific Plan (PSP) describes the data collection needed to support predesign activities in the Waste Pits (Subarea 3) and waste handling facilities (Subarea 4) of Remediation Area 6 (hereafter Area 6). The format of this PSP differs from that of previously submitted PSPs, in that it only presents the specific information needed to collect samples in Subareas 3 and 4 of Area 6. The general information that is routinely addressed in a PSP, such as health and safety issues, can be found in 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation*. While this PSP has section headings similar to the sections in the General PSP, 20300-PSP-0011, the information in many of the General PSP sections will be referenced with a simple statement, rather than repeated here.

1.1 PURPOSE

The purpose of this PSP is to provide specific direction regarding the predesign sampling in Subareas 3 and 4 of Area 6. This detailed information includes the decision logic for sample collection, sample locations, number of borings, depth intervals, and constituents of concern. Predesign activities in Subareas 1 and 2 of Area 6 were covered under previous PSPs.

1.2 SCOPE

Subareas 3 and 4 of Area 6 lie in the northwest quadrant of the property comprising the Fernald Closure Project (Figure 1-1). Subarea 3 includes the footprint of the solid-waste landfill and the rail lines not included in Subareas 1 and 4, while Subarea 4 contains the Treatment Building, Railcar-Loading Facility and Biodenitrification Surge Lagoon (BSL). The implementation schedule for this PSP is Spring 2005.

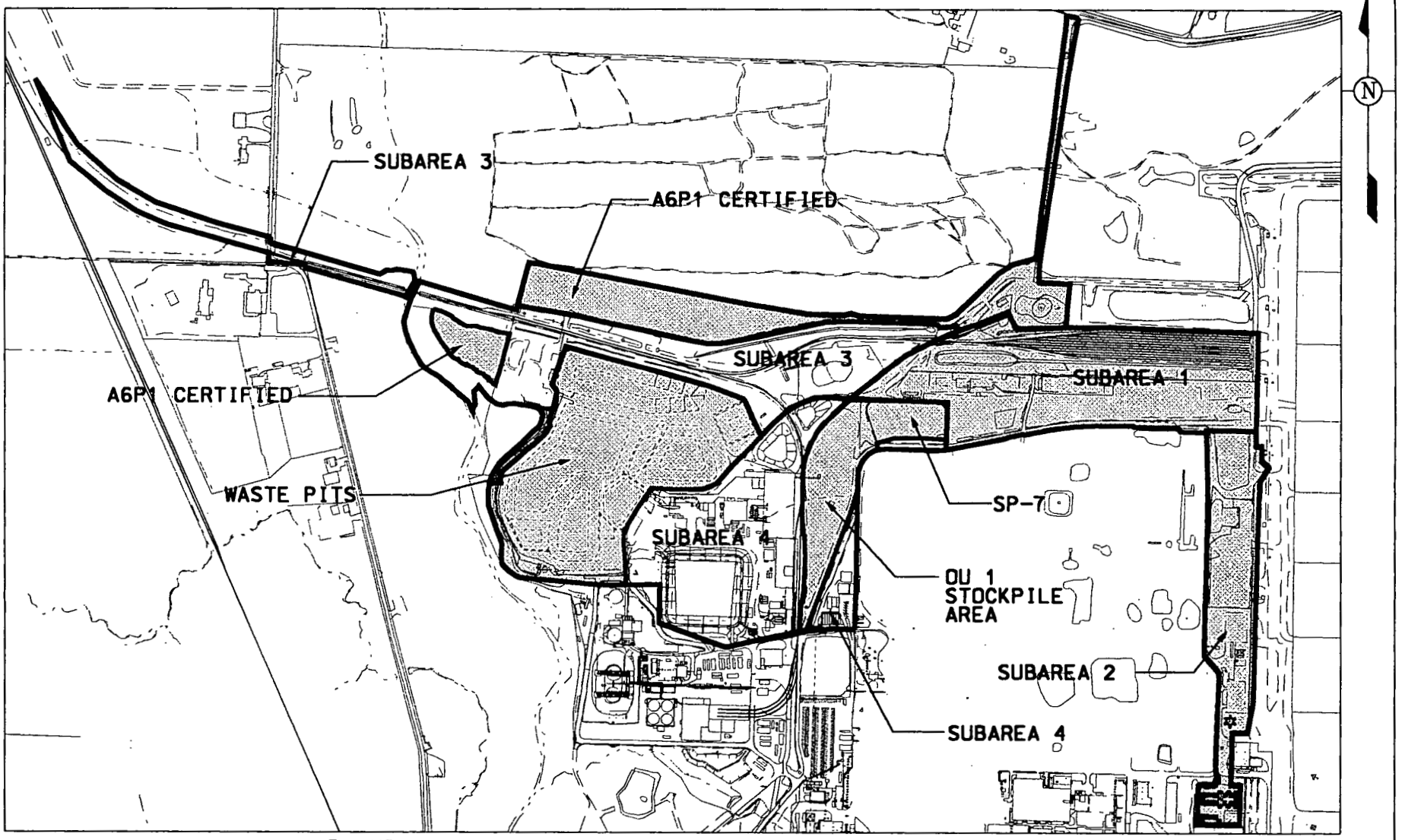
This PSP is not a work authorization document for implementing fieldwork. Work authorization is provided per SH-0021, Work Permits, and may include applicable Environmental Services procedures, Fluor Fernald work permits, radiological work permit (RWP), penetration permits, and other applicable permits.

1.3 VARIANCE/FIELD CHANGE NOTICE (V/FCN) DOCUMENTATION

Reference Section 7.5 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation*.

1.4 KEY PERSONNEL

Reference Section 1.4 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation.*



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STATE PLANAR COORDINATE SYSTEM 1983

FIGURE 1-1. SUBAREAS COMPRISING REMEDIATION AREA 6

15-DEC-2004

2.0 AREA-SPECIFIC WORK

2.1 AREA 6

2.1.1 History

The remaining characterization work within Area 6 has been divided into Subareas 1 through 4, the Waste Pits, and Soil Pile (SP) 7/Operable Unit (OU) 1 Stockpile Area (Figure 1-1) to accelerate the remediation of Area 6 as smaller sections become available. Subareas 1 and 2 include the rail yard used to stage both loaded and empty rail cars from the Waste Pit operations, the west and east On-Site Disposal Facility (OSDF) Material Transfer Areas (OMTA) that stored debris, and the footprints of the KC-2 Warehouse, Quonset Huts, Building 77 and Building 79. Predesign activitites in Subareas 1 and 2, the SP-7/OU1 Stockpile Area and the Waste Pits have been covered under other approved PSPs.

This PSP will investigate the above-waste acceptance criteria (WAC) and above-final remediation level (FRL) contamination in Subareas 3 and 4 that is associated with the footprint of the Solid Waste Landfill (SWL), rail lines not included in Subarea 1, the administrative and support area north of the Lime Sludge Pond (LSP) footprint, and associated treatment and shipping facilities (Figure 1-1). Material within the SWL has been excavated, and characterization of Subarea 3 will focus on contamination in the footprints of the SWL and rail lines. Waste material from the production years was excavated, dried, and loaded into rail cars within Subarea 4, and characterization activities will focus on the soil below the treatment structures, the BSL and the support and administrative area.

2.1.2 Predesign

Predesign will be performed under the guidelines of Section 4.0 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation.*

2.1.2.1 Scope

This PSP supplements previous investigations for Area 6 in Subareas 3 and 4, but does not cover excavation control or certification sampling. Excavation and certification activities will be addressed by separate PSPs.

The extent of contamination in Subareas 3 and 4 has been addressed using historical analytical data for uranium and other contaminants, as well as a 3-D subsurface uranium contamination model. As identified in this PSP, additional samples will be collected to supplement the historical data set and

preliminary 3-D model to ensure all soil contamination above established FRLs is captured. Section 2.1.2.3 details the rationale and decision logic for sampling activities in Subareas 3 and 4.

All data collection activities will be consistent with the Sitewide Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Quality Assurance Plan (SCQ) and Section 3.1 of the Sitewide Excavation Plan (SEP). Physical samples will be collected in accordance with the Data Quality Objective (DQO) SL-048. Real-time data collection activities will be in accordance with DQOs SL-054 and SL-055. These DQOs are provided in the appendices of the General PSP (20300-PSP-0011). Analytical data will be utilized to assess whether constituent of concern (COC) concentrations in these areas are lower than the FRLs outlined in the OU5 Record of Decision. The data collected under this plan will also be used to determine whether soil and soil-like material from the area meet the OSDF WAC, as defined in the SEP, the OSDF WAC Attainment Plan, and the OSDF Impacted Materials Placement Plan.

Appendix A contains the Target Analyte Lists (TALs) and Appendix B provides detail on the borings and sample identifiers. Appendix C contains the V/FCNs associated with Revision 0 of this PSP.

2.1.2.2 Determination of FRL COCs and WAC COCs

Using the Remedial Investigation/Feasibility Study (RI/FS) data for Area 6 and Table 2-7 of the SEP a list of FRL and WAC COCs was determined for Subareas 3 and 4.

2.1.2.2.1 WAC COCs

Area 6 data from the OU5 RI/FS were used to identify soil areas (e.g., AWAC #5) that contained COCs in excess of the OSDF WAC (Figure 2-1). WAC COCs for Subareas 3 and 4 include:

- Technetium-99
- Uranium, total

2.1.2.2.2 FRL COCs

The lists of FRL COCs for Subareas 3 and 4 are given below. Primary and secondary FRL COCs listed will be investigated with this PSP because some boring intervals indicate that the COCs are not bounded and they are outside the 3-D model for uranium contamination. Most secondary COCs identified in Table 2-7 of the SEP are bounded by the 3-D model for uranium contamination, and they do not require further investigation.

Primary COCs

- Radium-226
- Thorium-228
- Thorium, total
- Uranium, total

Secondary COCs

- Aroclor-1254
- Arsenic
- Beryllium
- Dieldrin

2.1.2.3 Sampling Strategy

The entire length of all soil cores collected will be surveyed with a beta/gamma (Geiger-Mueller) survey meter and results will be recorded as part of the field documentation. In the event that the field screening results exceed 450 corrected counts per minute (ccpm) for an interval that is not planned for collection, a sample will be collected from this interval and analyzed for total uranium, as the field screening for this interval indicates the potential for above-WAC material.

2.1.2.3.1 WAC Sampling Strategy

Some of the total uranium above-WAC results from the historical borings (Figure 2-1) are not bounded at depth or are from a surface that may have been excavated or filled since the original data were collected. Table 2-1 summarizes all known above-WAC locations and identifies new borings that are needed to define the extent of above-WAC material. Uranium locations that require further investigation will contain a single boring that investigates the depth of above-WAC contamination, and real-time scans with sodium iodide (NaI) instruments, with confirmation by high-purity germanium (HPGe) measurements, will bound the lateral extent of above-WAC contamination. Locations that contain technetium-99 will be investigated with five new borings to define the vertical (one boring) and lateral (north, south, east, west) extent of contamination.

For the new soil borings that investigate the vertical extent of contamination, the bottom elevation of the original above-WAC interval, relative to mean sea level (MSL), will be the target of the top of the first 6-inch interval, followed by two additional 6-inch intervals. A sample will be collected from each of the three consecutive intervals and they will be submitted for uranium and/or technetium-99 analysis. Borings that investigate the lateral extent of contamination will be placed 5 feet away from the center

boring in each of the compass directions and sampled from the first 6-inch interval of soil. The boring table located in Appendix B defines the sample intervals for the new borings identified in Table 2-1. If above-WAC contamination is not bounded by the new borings, a variance will be written to extend the radius and/or depth of sampling.

Two contingency scenarios are envisioned for borings that bound the vertical extent of contamination. If either scenario is encountered, it will be documented in the field paperwork.

First, if soil is encountered prior to reaching the top of the first target interval (assumed to be soil fill), a sample will be collected from every 6-inch interval above the target interval, and each sample will be analyzed for total uranium and/or technetium-99. The three target intervals will then be collected as described in the preceding paragraph. Second, if the targeted interval is not soil, the boring will be advanced until soil is encountered. A sample will be collected from the first, second, and third intervals after soil is encountered, and each sample will be analyzed for total uranium and/or technetium-99.

Sampling of the concrete floor will be performed in the Material Handling Building and on the concrete pads used as waste staging areas west of the Material Handling Building, and may be performed in the Rail Car Building in Subarea 4 to investigate the concentration of technetium-99 for OSDF WAC determination. If the results from the concrete sampling at the first two buildings are acceptable, then sampling of the Rail Car Building will not be required.

The OU1 Implementation Plan requires that a hierarchy of porous concrete surfaces where technetium-99 could have penetrated the surface be provided. This hierarchy, in order of possibility, includes the Material Handling Building, the staging areas west of the Material Handling Building, and the Rail Car Building. OSDF mass-based WAC for technetium-99 in concrete was developed during the OU3 RI/FS. However, the Material Handling Building did not exist at that time. Therefore, further investigation into the concentration of technetium-99 in the concrete of the Material Handling Building is warranted. Additionally, because pit materials were staged in the staging areas west of the Material Handling Building, investigation is required. If results from the concrete sampling and subsequent mass estimation of technetium-99 in these buildings are acceptable, sampling of the concrete in the Rail Car Building where incidental spills may have occurred will not be required.

Biased samples will be field located, assisted by OEPA personnel, at the lowest points in the floors of the loadout bins of the Material Handling Building where waste-handling/load-out operations occurred, at the

location where material was staged in the staging areas, and, if required, anywhere incidental spills may have occurred in the Rail Car Building. A sample from the top 3 inches of concrete will be taken at each of the biased locations and analyzed for technetium-99 to determine the potential worst-case total mass and technetium-99 and the proper disposition of the concrete. Additional sampling may be required to further delineate the extent of technetium-99, if necessary.

2.1.2.3.2 FRL Sampling Strategy

The distribution of historical data and a preliminary excavation model of the 3-D subsurface uranium contamination in Subareas 3 and 4 were used to determine additional sampling needs. Results from this assessment indicate additional borings are needed to fill data gaps, refine the 3-D model and revise the excavation volume. For the new borings, the depth to sample will be based off of the original MSL of the historical above-FRL interval. When the MSL is determined for the new boring locations, it will be compared to the historical value and, if it does not agree, the target intervals in Appendix B will be adjusted to account for the difference.

If soil fill is encountered prior to reaching the top of the first target interval, a sample from the first 6-inch interval of this soil fill will be collected and analyzed for the TAL specified for the boring. The target intervals will then be collected as described in the boring table located in Appendix B.

If the target interval is soil fill and a soil fill sample has not been previously collected at the boring, a sample from the first 6-inch interval of this soil fill will be collected and analyzed for the TAL specified for the boring. The boring will be advanced until soil is encountered. The same number of intervals as specified in the boring table located in Appendix B will then be collected, but these will be at a deeper interval than specified in the boring table.

Subarea 3

Figure 2-2 shows the historical boring locations for this subarea and identifies locations for proposed borings that will examine the extent of above-FRL contamination. Soil from borings A6-SA3-1 through A6-SA3-15 will be sampled from the 0 to 0.5-foot interval to fill data gaps (i.e., voids in coverage), and these locations lie along the rail line and within the area west of the Waste Pits. All samples collected from these borings will be analyzed for the constituents listed in Sections 2.1.2.2.1 and 2.1.2.2.2. Remaining borings will be placed to bound FRL contamination at historical boring locations.

For isolated historical locations that do not have surrounding data points with below-FRL results and they are not bounded by the 3-D model for uranium contamination, one new boring will be placed at the historical location and four new borings will be placed 5 feet from the historical location in each of the four compass directions. The boring placed at the historical location will have a sample collected immediately below the historical sampled interval and 3 feet below this interval. The four borings placed in each of the compass directions will be sampled at the depth interval that corresponds to one-half the depth of the deepest contamination identified at the historical location. However, if the depth of contamination at the historical location is 0 to 6 inches, the four borings that surround the historical location will be sampled at the 0 to 6 inch interval. This 5-spot pattern will apply to most of the historical locations listed in Table 2-2 and identified on Figure 2-2 (detail on new borings and sample intervals is provided in Appendix B). If the contamination is bounded at depth for a historical location, then four new borings are listed for an entry in Table 2-2.

Three zones (north, east and south) around the excavated SWL (Figure 2-2) have unbounded uranium data. Note that above-FRL samples enclosed by the perimeter of the SWL excavation line have been removed, leaving uranium contamination to the north, east and south. Uranium data in these three zones do not include sufficient analytical results adjacent to an above-FRL result or from the 12-inch interval directly below an above-FRL result. With an insufficient number of FRL bounding values in the horizontal plane and the 12-inch interval below an above-FRL result, the statistical estimation of the FRL boundary generated by the 3-D model will result in an overestimation of the soil volume that must be excavated. To refine the volume of soil that must be excavated, uranium data used in the preliminary 3-D model will be supplemented with uranium data collected from each of the three zones.

The north zone contains four borings where contamination exceeds the FRL for uranium and arsenic (11202 only) in the 0 to 0.5-foot interval below the surface (Figure 2-3). Location CIS-SYSGEN-887 has an above-WAC symbol, because in addition to the 0.17 to 0.5-foot interval of above-FRL contamination, the 0 to 0.17-foot deep sample exceeds the uranium WAC, as noted in Table 2-1. Boring 11203 contains arsenic, beryllium and radium-226 at levels above their respective FRLs, and sampling for this location is covered in Table 2-2. Four new borings (A6-SA3-70, -71, -72, -73) will be placed around the above-FRL borings and samples will be collected from the 0 to 0.5-foot interval to determine the lateral extent of uranium and arsenic contamination in the north, south, east and west directions. Boring A6-SA3-74 will be placed near the center of the area defined by the new borings and samples will be collected from intervals 0.5 to 1 and 3 to 3.5 feet below the ground surface to determine the vertical extent of uranium

and arsenic contamination. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius and/or depths.

The east zone contains 12 borings where uranium exceeds the FRL in the 0 to 1-foot interval below the surface (Figure 2-4). Above-FRL contamination at location SWL-SS-12 was removed when the SWL was excavated in spring of 2004. Four new borings (A6-SA3-75, -76, -77 and 78) will be placed around the 12 above-FRL locations to determine the lateral extent of uranium contamination in the north, south, east and west directions. Borings A6-SA3-79 and -80 will be placed inside the area bounded by the new borings and samples will be collected from intervals 1 to 1.5 and 3.5 to 4 feet below the ground surface to determine the vertical extent of uranium contamination. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius and/or depths.

The south zone contains 30 borings where uranium exceeds the FRL in the 0 to 1.5-foot interval below the surface (Figure 2-5). This zone extends south into Subarea 4, and the southern extent of contamination will be covered under the Subarea 4 section. Four borings (A6-SA3-81, -82, -83, -84) will be placed around the historical borings to bound the lateral extent of uranium contamination to the north, east and west. Borings A6-SA3-85 and -86 will be placed inside the contamination zone and samples will be collected from intervals 1.5 to 2 and 4 to 4.5 feet below the ground surface to determine the vertical extent of uranium contamination. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius and/or depths.

Subarea 4

Figure 2-6 shows the historical boring locations for this subarea and identifies locations for proposed borings that will examine the extent of above-FRL contamination. Borings A6-SA4-1 through A6-SA4-15 will be placed to fill data gaps (i.e., voids in coverage), and these locations lie under the BSL and building foundations. All samples collected from these borings will be analyzed for the constituents listed in Sections 2.1.2.2.1 and 2.1.2.2.2. Remaining borings will be placed to bound FRL contamination at historical boring locations.

For isolated historical locations that do not have surrounding data points with below-FRL results and they are outside the 3-D model for uranium contamination, the 5-spot pattern and sample intervals used for borings in Subarea 3 will apply to the historical locations listed in Table 2-3 and identified on Figure 2-6 (detail on new borings and sample intervals is provided in Appendix B). For historical borings 11072 and 11077, which have above-FRL thorium results reported to a depth of 15.5 feet below the surface, a

single boring will be placed at each historical location and samples will be collected at each interval identified in Table 2-3 to confirm the historical results. The historical results are being re-evaluated because the reported thorium result for all samples [<18 milligrams per kilogram (mg/kg)] is equivalent to the reported thorium detection limit, which is an unusually high detection limit given that modern analytical methods can easily achieve thorium detection limits of less than 5 mg/kg. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius and/or depths.

Uranium contamination along the north, west and southeast boundaries of Subarea 4 is not completely delineated, as insufficient analytical results are available adjacent to an above-FRL result or from the 12-inch interval directly below an above-FRL result. Radium-226 is also present as a contaminant in the west zone. With an insufficient number of FRL bounding values in the horizontal plane and the 12-inch interval below an above-FRL result, the statistical estimation of the FRL boundary generated by the 3-D model will result in an overestimation of the soil volume that must be excavated. To refine the volume of soil that must be excavated, uranium data used in the preliminary 3-D model will be supplemented with uranium data collected from additional borings.

An above-FRL uranium zone lies along the north boundary of Subarea 4 (Figure 2-7). This zone extends across the boundary into the Waste Pits and Subarea 3. Sampling in Subarea 3 was discussed in the previous section, and bounding of the contamination in the Waste Pits has been covered under the PSP for Waste Pits 4, 5 and 6. In the northern section of Subarea 4, two basins were excavated into the historical surface to support the treatment operations for material in the Waste Pits. All above-WAC (CIS-SYSGEN-679) and above-FRL samples within the perimeter of these basins were in the top 1.5 feet of soil, and this soil has been excavated, segregated and disposed in accordance with the SEP.

Seven above-FRL uranium samples (CIS-SYSGEN-698, -713, - 722, -723, -724, -744, -757) lie between the two basins on Figure 2-7, and all of these samples were collected from the top 6 inches of soil. Below-FRL samples that surround and lie between the FRL samples show contamination is bounded laterally and at the 1-foot depth. Therefore, the area is bounded and the soil between the basins will be excavated to a depth of 1 foot.

Along the northwest margin and south of the southern basin (Figure 2-7), above-FRL samples indicate uranium contamination extends to a depth of at least 1.5 feet (CIS-SYSGEN-585). Three new borings (A6-SA4-23, -24, -25) will be placed across this above-FRL zone and samples will be collected from the 1.5 to 2-foot and 4 to 4.5-foot intervals to identify the vertical extent of the uranium contamination. The

lateral extent of contamination to the east is bounded by the southern-basin excavation and below-FRL samples. However, the south border of this above-FRL zone is not laterally bounded by a below-FRL result, and two additional borings (A6-SA4-26 and -27) will be placed to obtain a sample from the top 6 inches of soil. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius and/or depths.

Uranium contamination along the west boundary of Subarea 4 also extends into the Waste Pits, and the bounding in the west direction has been covered under the PSP for Waste Pits 1, 2 and 3. Within the western zone of Subarea 4 (Figure 2-8), the horizontal extent of above-FRL contamination is bounded in the northern portion of this zone (20600-PSP-0009, *PSP for Investigating Subsurface Material from Waste Pits 4 through 6 and the Burn Pit*) and partially bounded in the east, central and southern reaches of this zone. Four additional borings will be placed (A6-SA4-28,-29,-30,-31) and samples will be collected from the 0 to 0.5-foot interval to define the lateral extent of uranium and radium-226 contamination in the east, central and south portion of this above-FRL uranium zone. The vertical extent of above-FRL uranium contamination is limited to the top 1.5 feet of soil, and additional borings are not needed to define the vertical extent of contamination. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius. Sampling at thorium location 11077 is summarized in Table 2-3.

The southern zone of the southeast triangle of Subarea 4 contains above-FRL uranium contamination (Figure 2-9). To the south and east, where the contamination zone extends into Areas 7 and 3B, respectively, contamination will be bounded under work scope discussed in other PSPs. Two new borings (A6-SA4-32,-33) will be placed north and west of the FRL zone to bound the lateral extent of contamination. Borings CIS-SYSGEN-345 and -378 indicate that uranium contamination is bounded at the 1-foot depth, and additional vertical bounding is unnecessary. If contamination is not bounded by the new borings, a variance will be written to extend the sampling radius. Sampling at thorium location 11072 is summarized in Table 2-3.

Table 2-4 addresses the analytical requirements for all soil samples in Subareas 3 and 4.

2.1.3 Precertification

Precertification will be performed per 20300-PSP-0011, Section 3.0 and Section 6.0.

TABLE 2-1
HISTORICAL ABOVE-WAC BORINGS IN
SUBAREAS 3 AND 4 AND PROPOSED NEW BORINGS

Old Boring ID	Sample Interval (feet below historical MSL)	Result	Historical MSL (ft)	Present MSL (ft)	New Boring ID
CIS-SYSGEN-466	0 - 0.17 0.17 - 0.5	U = 1520 mg/kg U = 342 mg/kg	584.6	582.4	Not needed, U is bounded.
CIS-SYSGEN-467	0 - 0.17 0.17 - 0.5 0.5 - 1	U = 1210 mg/kg U = 1490 mg/kg U = 108 mg/kg	583	582.5	Not needed, U is bounded.
CIS-SYSGEN-471	0 - 0.17	U = 1660 mg/kg	583.5	582.8	**A6-AC6-1**
CIS-SYSGEN-477	0 - 0.17 0.17 - 0.5 0.5 - 1	U = 2250 mg/kg U = 1200 mg/kg U = 114 mg/kg	584.8	582	Not needed, U is bounded.
CIS-SYSGEN-496	0 - 0.16 0.16 - 0.5	U = 3780 mg/kg U = 820 mg/kg	583	582.6	Not needed, U is bounded.
CIS-SYSGEN-509	0 - 0.16	U = 1750 mg/kg	578.5	583.5	**A6-AC7-1**
CIS-SYSGEN-529	0 - 0.16 0.17 - 0.5	U = 1120 mg/kg U = 258 mg/kg	583	582.5	Not needed, U is bounded.
CIS-SYSGEN-585	0 - 0.16 0.16 - 0.5	U = 4480 mg/kg U = 726 mg/kg	583	585	Not needed, U is bounded.
CIS-SYSGEN-596	0 - 0.17	Tc-99 = 33 pCi/g	582.2	582.6	**A6-AC4-1** **A6-AC4-2** **A6-AC4-3** **A6-AC4-4** **A6-AC4-5**
CIS-SYSGEN-717	0 - 0.17 0.17 - 0.5	U = 1110 mg/kg U = 306 mg/kg	581.3	582.5	**A6-AC3-1** **A6-AC3-2** **A6-AC3-3** **A6-AC3-4**
CIS-SYSGEN-773	0 - 0.17	U = 2120 mg/kg	578.6	585	**A6-AC2-1** **A6-AC2-2** **A6-AC2-3**
CIS-SYSGEN-887	0 - 0.17 0.17 - 0.5	U = 2130 mg/kg U = 68.4 mg/kg	582.5	588	Not needed, U is bounded.
Not applicable	Not applicable	Not applicable			Concrete-MHB **A6-AC8-1** **A6-AC8-2** **A6-AC8-3** **A6-AC8-4**

pCi/g – picoCuries per gram

Boring ID example: A6-AC4-1 = Area 6 – Above-WAC Confirmation zone 4 – boring 1

TABLE 2-2
UNBOUNDED ABOVE-FRL BORINGS IN SUBAREA 3 AND PROPOSED NEW BORINGS

Historical Boring	Sample Interval feet below surface	Contaminant	Result mg/kg or (pCi/g)	New Borings
WPA38	0 to 0.5	Aroclor-1254	2.1	A6-SA3-16 A6-SA3-17 A6-SA3-18 A6-SA3-19 A6-SA3-20
A6-RSW-3	1.0 to 1.5	Arsenic	12.2	A6-SA3-21 A6-SA3-22 A6-SA3-23 A6-SA3-24 A6-SA3-25
11203*	0 to 0.5 1 to 1.5 2.5 to 3	Arsenic Arsenic, Beryllium Radium-226	16.8 13.2, 1.7 (3.3)	A6-SA3-31 A6-SA3-32 A6-SA3-33 A6-SA3-34
500318/SS-23	0 to 0.5	Beryllium	1.7	A6-SA3-35 A6-SA3-36 A6-SA3-37 A6-SA3-38 A6-SA3-39
WPA1	0 to 0.5	Dieldrin	0.020	A6-SA3-40 A6-SA3-41 A6-SA3-42 A6-SA3-43 A6-SA3-44
WPA2	0 to 0.5	Dieldrin	0.018	A6-SA3-45 A6-SA3-46 A6-SA3-47 A6-SA3-48 A6-SA3-49
WPA3	0 to 0.5	Dieldrin	0.018	A6-SA3-50 A6-SA3-51 A6-SA3-52 A6-SA3-53 A6-SA3-54
WPA5	0 to 0.5	Dieldrin	0.020	A6-SA3-55 A6-SA3-56 A6-SA3-57 A6-SA3-58 A6-SA3-59
WP-SS-24	0 to 0.5 0 to 0.5	Thorium, total Thorium-228	23.1 (3.97)	A6-SA3-60 A6-SA3-61 A6-SA3-62 A6-SA3-63 A6-SA3-64

TABLE 2-2
UNBOUNDED ABOVE-FRL BORINGS IN SUBAREA 3 AND PROPOSED NEW BORINGS

Historical Boring	Sample Interval feet below surface	Contaminant	Result mg/kg or (pCi/g)	New Borings
ZONE 3-375	0 to 0.017	Thorium-228	(2.2)	A6-SA3-65 A6-SA3-66 A6-SA3-67 A6-SA3-68 A6-SA3-69

*All contaminants bounded at a depth of 4.5 feet below the surface.

TABLE 2-3
UNBOUNDED ABOVE-FRL BORINGS IN SUBAREA 4 AND PROPOSED NEW BORINGS

Historical Boring	Sample Interval feet below surface	Contaminant	Result mg/kg or (pCi/g)	New Borings
WPA15	0 to 0.5	Arsenic	28.5	A6-SA4-16 A6-SA4-17 A6-SA4-18 A6-SA4-19 A6-SA4-20
11072	0 to 0.5 15 to 15.5	Thorium	18 18	A6-SA4-22
11077	0 to 0.5 2 to 2.5 5 to 5.5 10 to 10.5 15 to 15.5	Thorium	18 18 18 18 18	A6-SA4-21

Boring ID example: A6-SA4-16 = Area 6 – Sub Area 4 – boring 16

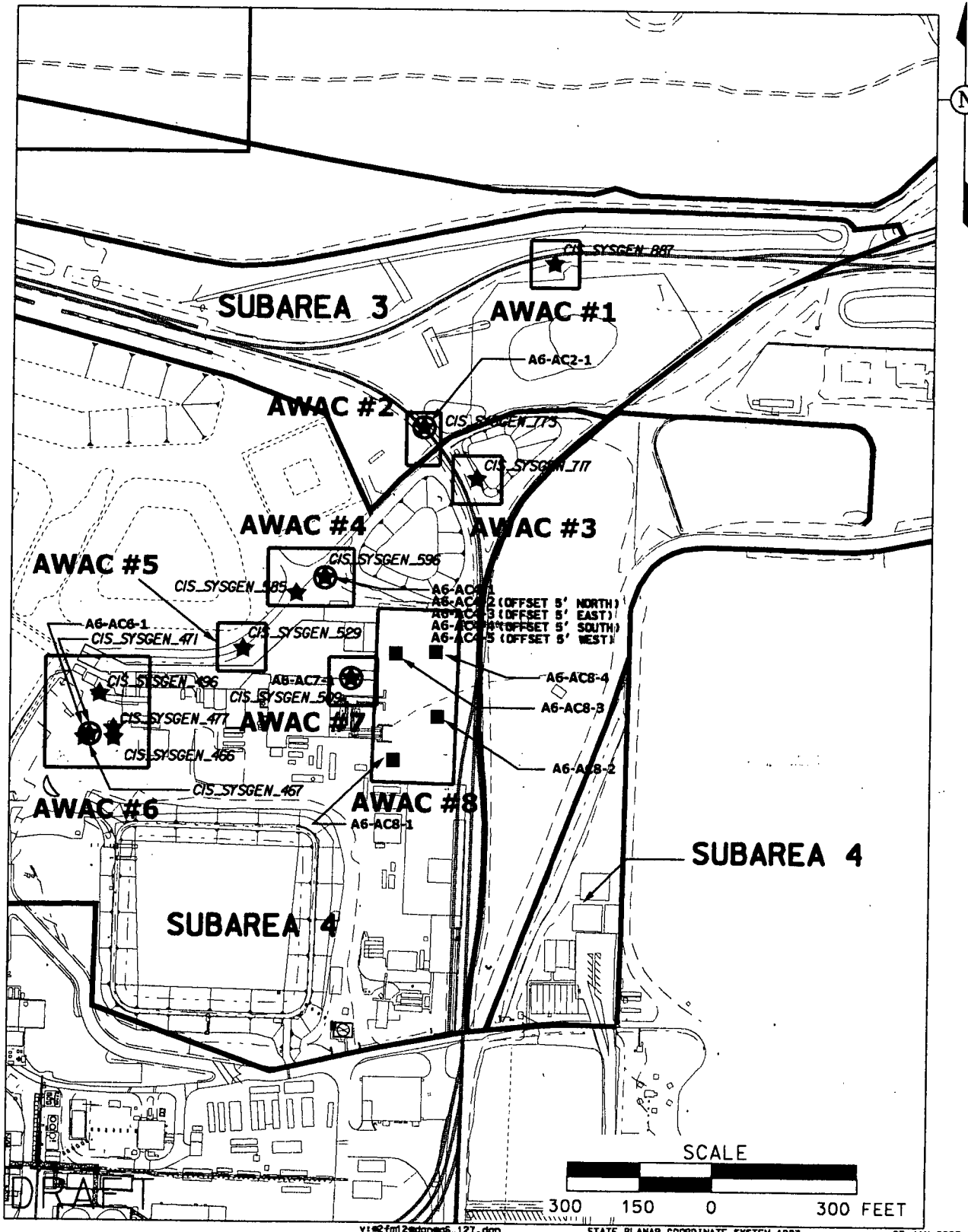
TABLE 2-4
ANALYTICAL REQUIREMENTS FOR SOIL SAMPLES

Analyte [a]	Method	Matrix	Holding Time	Preservative	Container [b]	Minimum Mass
Inorganics (TAL F)	ICP-OES or GFAA	Solid	6 months	Cool, 4°C	Plastic core liner or glass or polyethylene sample container	50 g
Radiological (TAL A, B, E, G, or AB)	Gamma Spec, Alpha Spec, LSC, or GPC	Solid	12 Months	None	Plastic core liner or glass or polyethylene sample container	400 g
Pesticides/PCBs (TAL C)	GC	Solid	14 days	Cool, 4°C	Glass with Teflon-lined lid	200 g
Rads and Metals (TALs AF or BF)	Gamma Spec, Alpha Spec, LSC, or GPC ICP or GFAA	Solid	12 months 6 months	Cool, 4°C	Plastic core liner or glass or polyethylene sample container	400 g
Rads/Metals/ PCBs and PAHs (TAL ABCEF)	Gamma Spec, Alpha Spec, LSC, or GPC ICP or GFAA GC	Solid	12 months 6 months 14 days	Cool, 4°C	Glass with Teflon-lined lid	500 g
Rads (TAL G)	Gamma Spec	Solid	12 months	None	Plastic core liner or glass or polyethylene sample container	400 g

GFAA - graphite furnace atomic absorption
GC - gas chromatograph
GPC - gas proportional counter
ICP - inductively coupled plasma
LSC - liquid scintillation counter
OES - optical emission spectroscopy

[a] Samples will be analyzed according to Analytical Support Level (ASL) B requirements but the minimum detection level may cause some analyses to be considered ASL E.

[b] Sample container types may be changed at the direction of the Field Sampling Lead, as long as the volume requirements, container compatibility requirements, and SCQ requirements are met.



LEGEND:

- HRD-02-2 ★ ABOVE-WAC SAMPLE BOUNDED VERTICALLY
- A6-AC3-3 ⊛ ABOVE-WAC SAMPLE AND PROPOSED BORING AT THE SAME LOCATION
- A6-AC3-3 ■ PROPOSED CONCRETE BORING
- ▭ AWAC ZONE IN AREA 6 TO BE BOUNDED BY NaI SCANS

FIGURE 2-1. AREA 6, SUBAREAS 3 AND 4, ABOVE-WAC LOCATIONS AND PROPOSED BORING LOCATIONS

REMAINDER OF AREA 6, SUBAREA 3 TO THE FCP WEST PROPERTY BOUNDARY SHOWN IN INSET MAP ON THE RIGHT. NOTE SCALE CHANGE

A6-SA3-1
A6-SA3-2
A6-SA3-3
A6-SA3-4
A6-SA3-5
A6-SA3-6
A6-SA3-7
A6-SA3-8
A6-SA3-9
A6-SA3-10
A6-SA3-11
A6-SA3-12
A6-SA3-13
A6-SA3-14
A6-SA3-15

A6-SA3-35,-36,-37,-38,-39
A6-SA3-40,-41,-42,-43,-44
A6-SA3-21,-22,-23,-24,-25
A6-SA3-45,-46,-47,-48,-49
A6-SA3-50,-51,-52,-53,-54
A6-SA3-65,-66,-67,-68,-69
A6-SA3-60,-61,-62,-63,-64
A6-SA3-55,-56,-57,-58,-59
A6-SA3-16,-17,-18,-19,-20
A6-SA3-31,-32,-33,-34

CERTIFIED

SEE FIGURE 2-3
SEE FIGURE 2-4
SEE FIGURE 2-5
EXTENT OF SWL EXCAVATION

1346000 1346400 1346800 1347200 1347600 1348000 1348400 1348800
483200 482800 482400 482000 481600

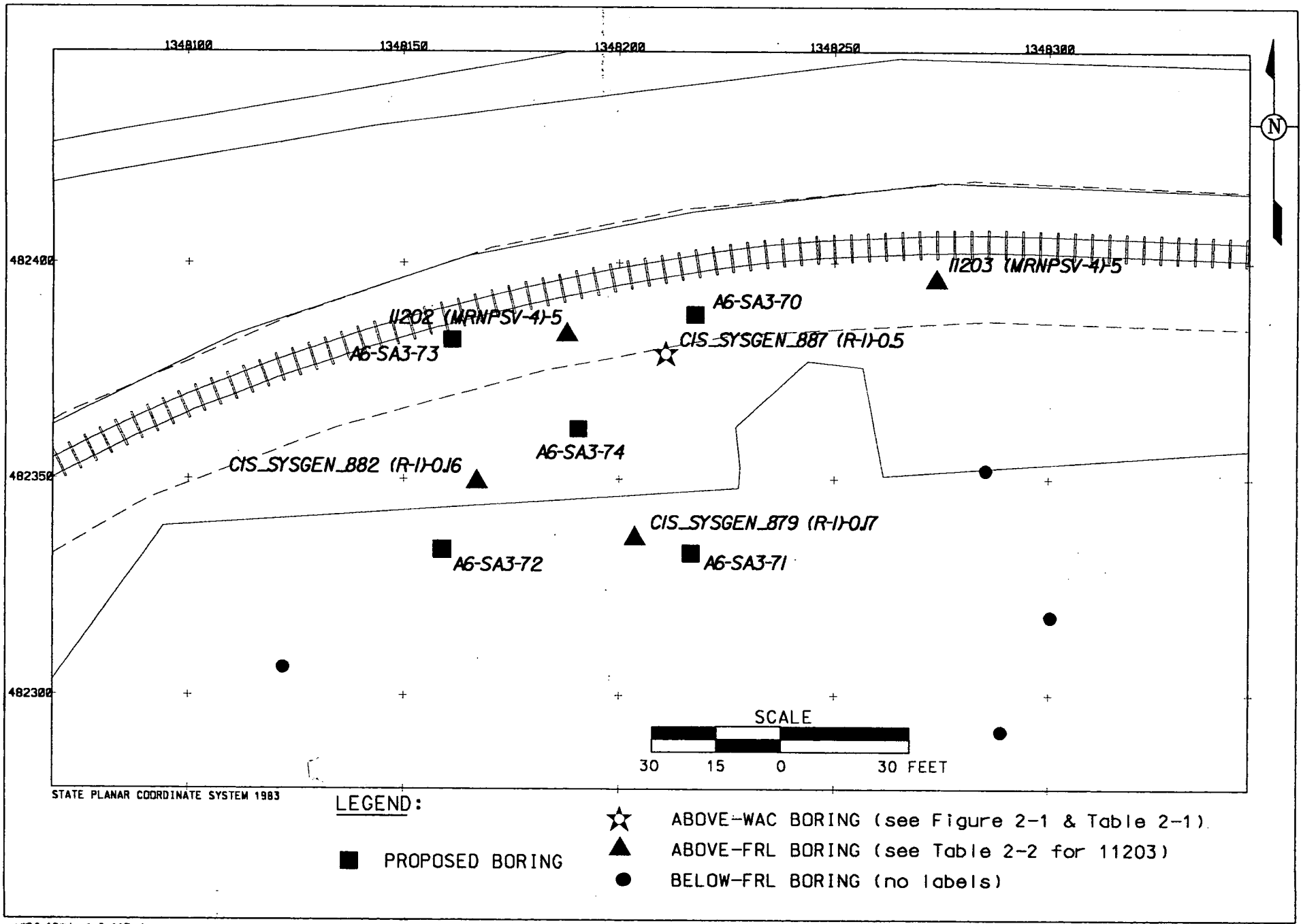
LEGEND:

- ■ PROPOSED BORING
- ○ PROPOSED 5-SPOT BORING PATTERN (except A6-SA3-31 see table 2-2)
- ☆ ABOVE-WAC BORING
- ▲ ABOVE-FRL BORING
- • BELOW-FRL BORING

SCALE
220 110 0 220 FEET

v:#2fm12#dgn#a6_126.dgn STATE PLANAR COORDINATE SYSTEM 1983 12-JAN-2005

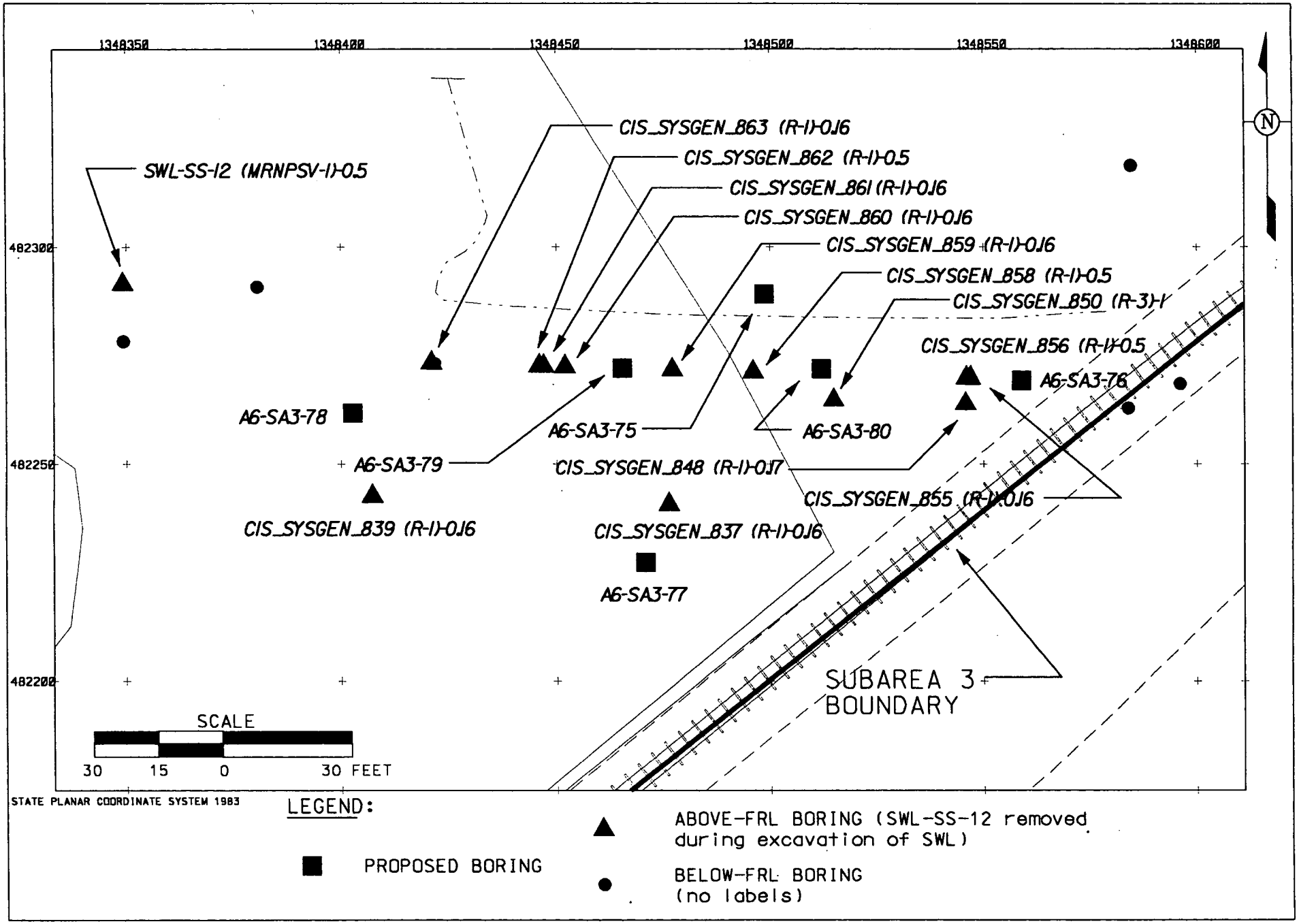
FIGURE 2-2. AREA 6, SUBAREA 3, HISTORICAL AND PROPOSED BORING LOCATIONS



v:\2fm12\dgn\a6_117.dgn

FIGURE 2-3. AREA 6, SUBAREA 3, NORTH ZONE, HISTORICAL AND PROPOSED BORINGS

10-JAN-2005



v:\2fm12\dgn\a6_118.dgn
11-JAN-2005

FIGURE 2-4. AREA 6, SUBAREA 3, EAST ZONE, HISTORICAL AND PROPOSED BORINGS

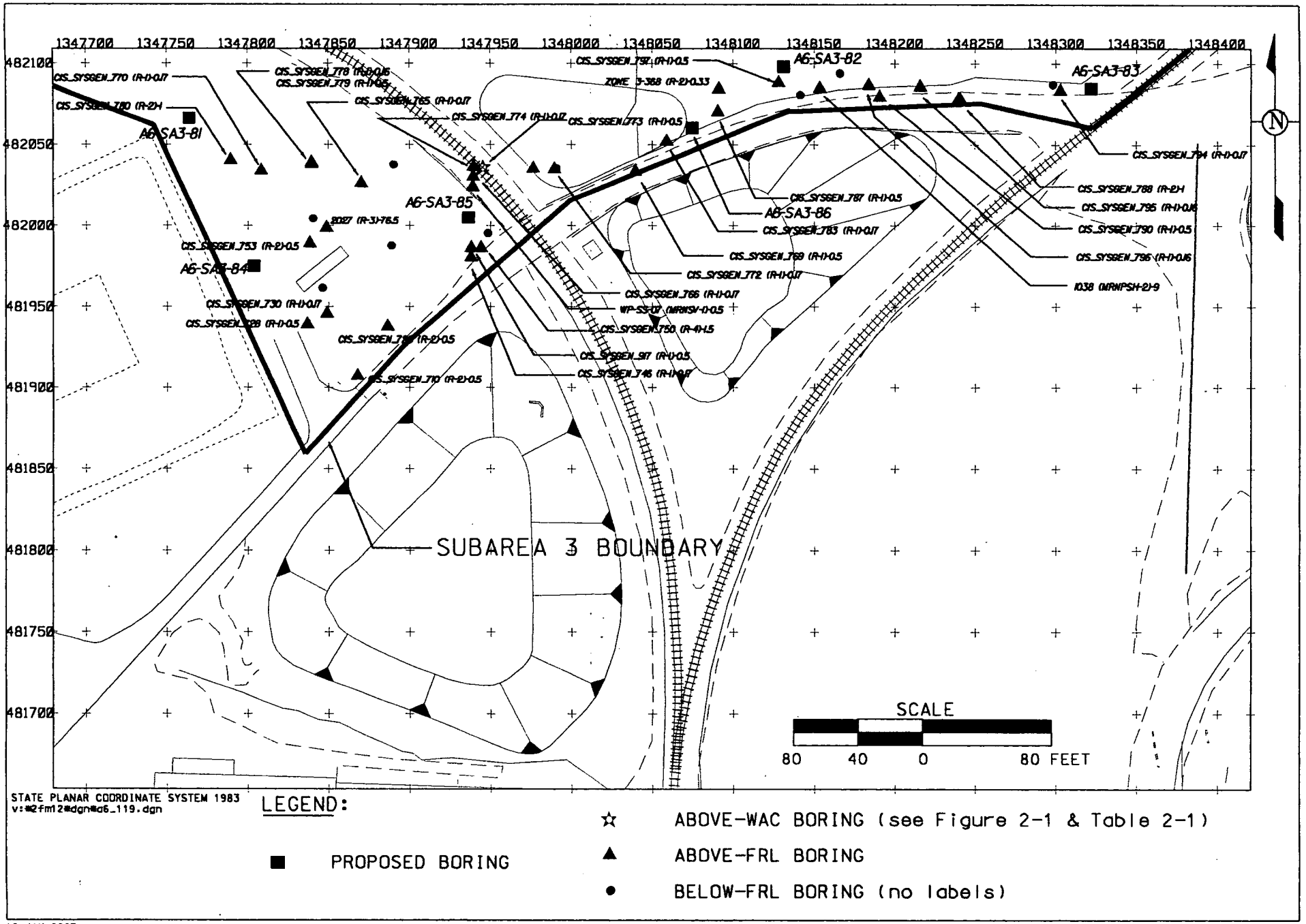
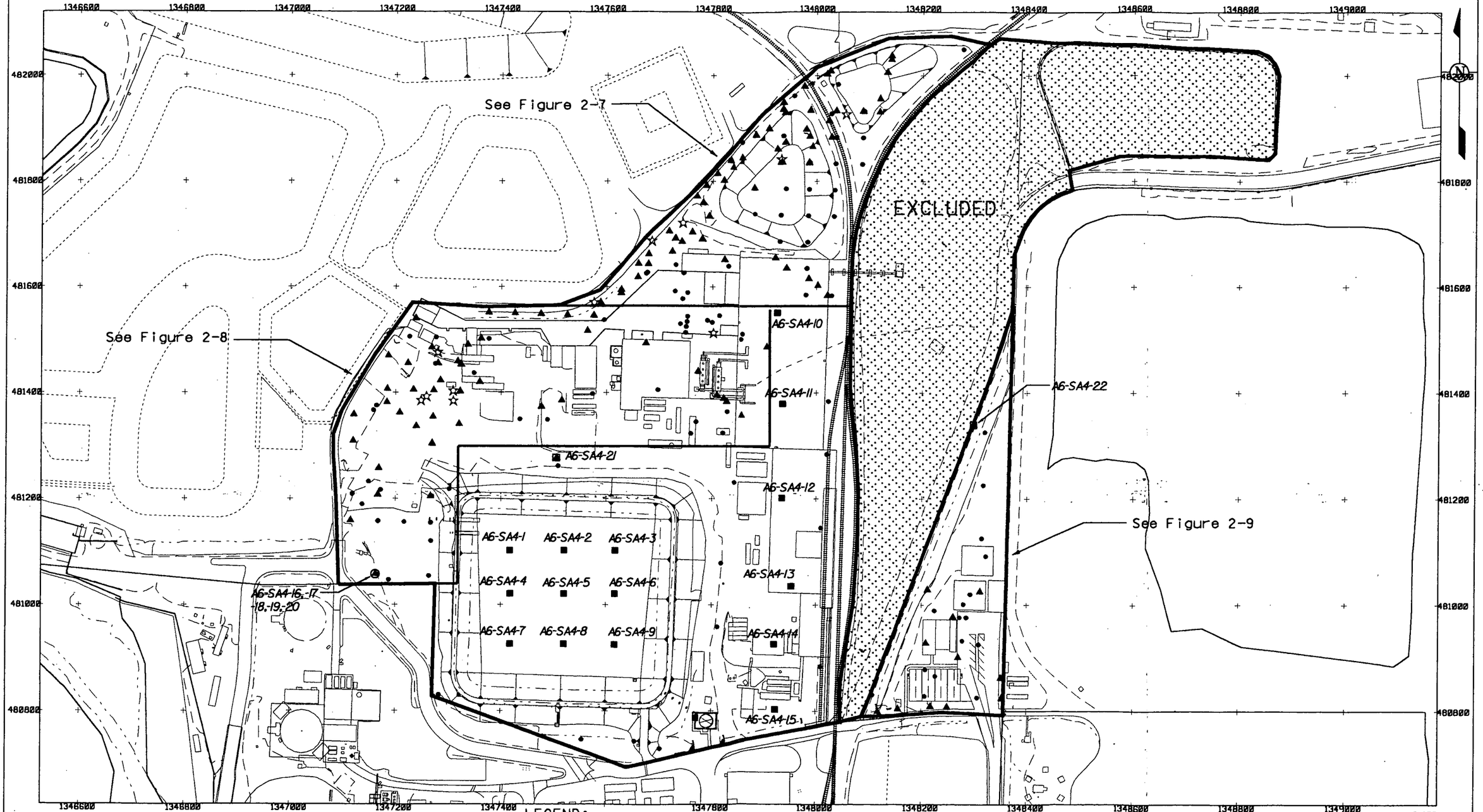


FIGURE 2-5. AREA 6, SUBAREA 3, SOUTH ZONE, HISTORICAL AND PROPOSED BORINGS



LEGEND:

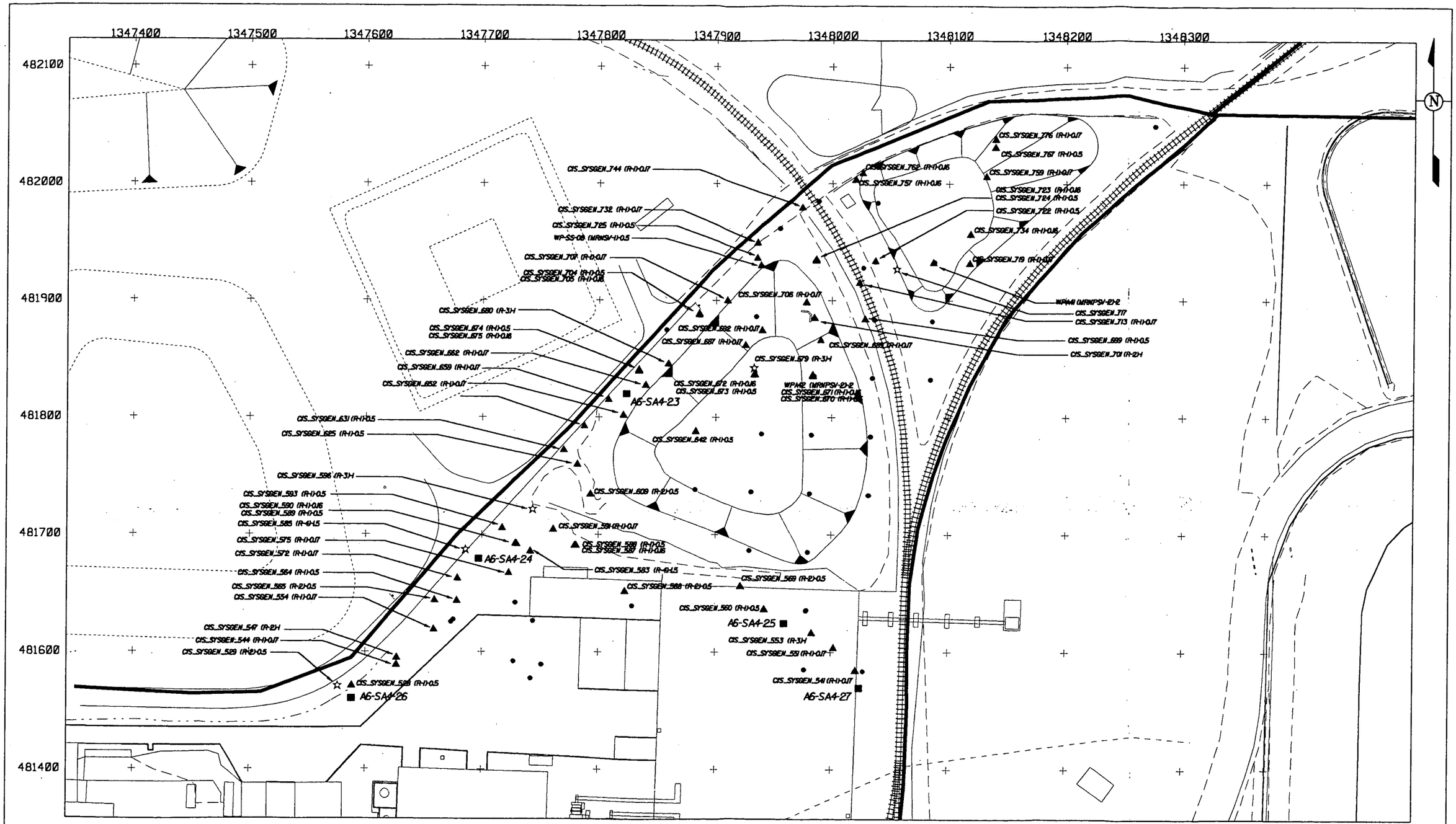
- ■ □ PROPOSED BORING
- ○ PROPOSED 5-SPOT BORING PATTERN
- ☆ ABOVE-WAC BORING (see Figure 2-1 & Table 2-1)
- ▲ ABOVE-FRL BORING
- • BELOW-FRL BORING

SCALE

180 90 0 180 FEET

v:\a2fm12\dgn\a6_129.dgn STATE PLANAR COORDINATE SYSTEM 1983 11-JAN-2005

FIGURE 2-6. AREA 6, SUBAREA 4, HISTORICAL AND PROPOSED BORING LOCATIONS

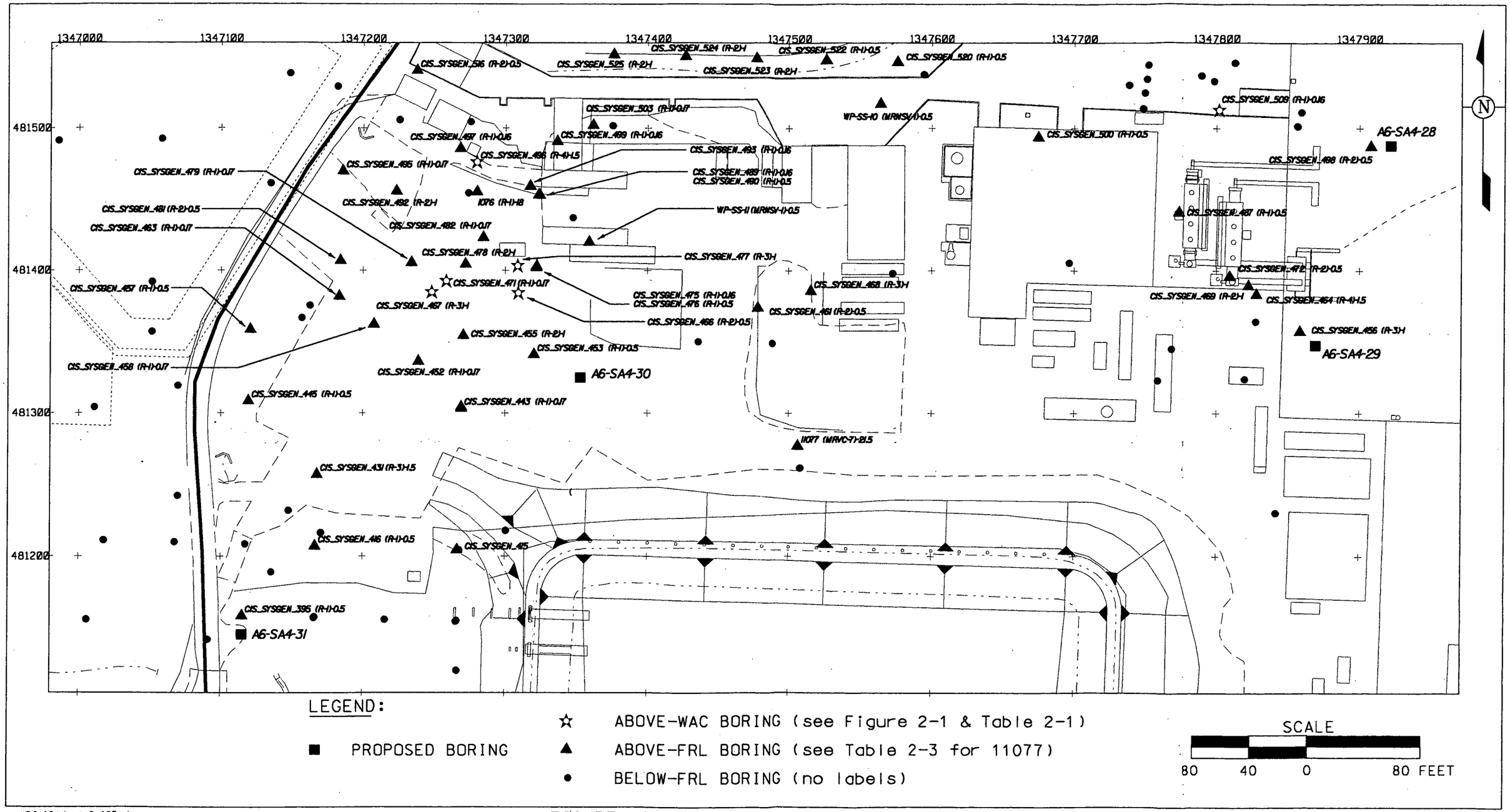


LEGEND:
- ☆ ABOVE-WAC BORING (see Figure 2-1 & Table 2-1)
- ▲ ABOVE-FRL BORING
- • BELOW-FRL BORING (no labels)
- ■ PROPOSED BORING

SCALE
80 40 0 80 FEET

v:\#2fm12\#dgn\#a6_122.dgn STATE-PLANAR COORDINATE SYSTEM 1983 10-JAN-2005

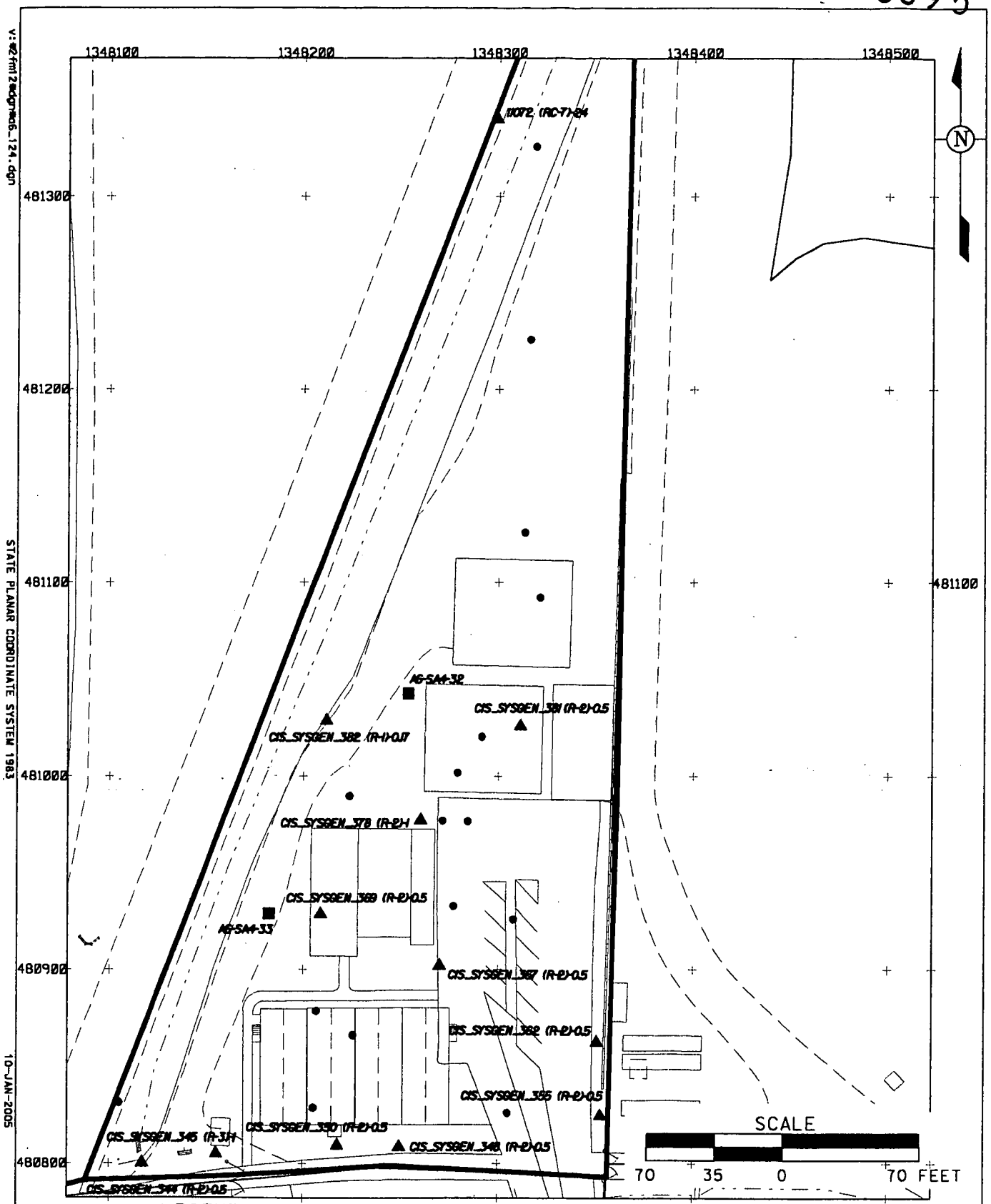
FIGURE 2-7. AREA 6, SUBAREA 4, NORTH ZONE, HISTORICAL AND PROPOSED BORING LOCATIONS



v:\2fm12\dgn\a6_123.dgn
STATE PLANAR COORDINATE SYSTEM 1983

FIGURE 2-8. AREA 6, SUBAREA 4, WEST ZONE, HISTORICAL AND PROPOSED BORING LOCATIONS

11-JAN-2005



LEGEND:

▲ ABOVE-FRL BORING (see Table 2-3 for 11072)

• BELOW-FRL BORING (no labels)

■ PROPOSED BORING

FIGURE 2-9. AREA 6, SUBAREA 4, SOUTHEAST ZONE, HISTORICAL AND PROPOSED BORING LOCATIONS

3.0 INSTRUMENTATION AND TECHNIQUES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

3.1 MEASUREMENT INSTRUMENTATION AND TECHNIQUES

3.1.1 Real-Time

3.1.1.1 Sodium Iodide Data Acquisition (RTRAK, RSS, GATOR, EMS)

3.1.1.2 HPGe Data Acquisition

3.1.1.3 Excavation Monitoring System

3.1.1.4 Radon Monitor

3.1.2 Surface Moisture Measurements

3.2 REAL-TIME MEASUREMENT IDENTIFICATION

3.3 REAL-TIME DATA MAPPING

3.4 REAL-TIME SURVEYING

4.0 PREDESIGN

4.1 REAL-TIME ACTIVITIES

Refer to Section 4.1 of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation.*

4.2 SAMPLE COLLECTION METHODS

4.3 PHYSICAL SAMPLE IDENTIFICATION

4.4 BOREHOLE ABANDONMENT

5.0 EXCAVATION CONTROL MEASURES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

5.1 EXCAVATION DESIGN CONTROL REQUIREMENTS

5.1.1 Contamination Zone

5.1.2 Floors, Roads and Foundations

5.1.3 Real-Time Lift Scans

5.1.4 Above-WAC Lift Scans

5.2 ORGANIC SCREENING AND PHYSICAL SAMPLING REQUIREMENTS

5.2.1 Above-WAC Photoionization Detector (PID)/Gas Chromatograph (GC) Screening

5.2.2 All Other Physical Sample Requirements

5.2.3 PID Screening and Physical Sampling Procedures

5.2.4 Physical Sample Identification

6.0 PRECERTIFICATION

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

6.1 INITIAL PRECERTIFICATION NaI SCAN AT BASE OF DESIGN GRADE

6.2 PRECERTIFICATION HPGe MEASUREMENTS IN 20 mg/kg FRL (URANIUM) AREAS

6.3 PRECERTIFICATION HPGe MEASUREMENTS IN 82 mg/kg FRL (URANIUM) AREAS

6.4 DELINEATING HOT SPOTS FOLLOWING PRECERTIFICATION HPGe MEASUREMENTS

7.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

7.1 QUALITY CONTROL SAMPLES - REAL-TIME MEASUREMENTS AND PHYSICAL SAMPLES

7.2 DATA VALIDATION

7.2.1 Physical Sample Data Validation

7.2.2 Real-Time Data Verification/Validation

7.3 APPLICABLE DOCUMENTS, METHODS AND STANDARDS

7.4 SURVEILLANCES

7.5 IMPLEMENTATION AND DOCUMENTATION OF V/FCNs

8.0 SAFETY AND HEALTH

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

9.0 EQUIPMENT DECONTAMINATION

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

10.0 DISPOSITION OF WASTES

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for this section.

11.0 DATA AND RECORDS MANAGEMENT

Reference the corresponding section of 20300-PSP-0011, *Project Specific Plan Guidelines for General Characterization for Sitewide Soil Remediation* for each of the following sections:

11.1 REAL-TIME

11.2 PHYSICAL SAMPLES

APPENDIX A

TARGET ANALYTE LISTS FOR PREDESIGN OF AREA 6 SUBAREAS 3 AND 4

APPENDIX A
TARGET ANALYTE LISTS FOR PREDESIGN OF AREA 6 SUBAREAS 3 AND 4

TAL A
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	WAC	FRL	Requested MDL
Total Uranium	1030 mg/kg	82 mg/kg	8.2 mg/kg

TAL B
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	FRL	Requested MDL
Radium-226	1.7 pCi/g	0.17 pCi/g
Thorium-228	1.7 pCi/g	0.17 pCi/g
Thorium-232	1.5 pCi/g	0.15 pCi/g

TAL C
Soil Analysis, Off-site, (ASL B)

Analyte (PCB)	FRL	Requested MDL
Aroclor-1254	0.13 mg/kg	0.013 mg/kg
Dieldrin	0.015 mg/kg	0.0015 mg/kg

TAL E
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	WAC	FRL	Requested MDL*
Technetium-99	29.1 pCi/g	30 pCi/g	2.9 pCi/g

TAL F
Soil Analysis, Off-site, (ASL B)

Analyte (Inorganics)	FRL	Requested MDL
Arsenic	12 mg/kg	1.2 mg/kg
Beryllium	1.5 mg/kg	0.15 mg/kg

TAL G
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	FRL	Requested MDL
Thorium-232	1.5 pCi/g	0.15 pCi/g

MDL – minimum detection level

*If the WAC is lower than the established FRL, the MDL will be set at 10 percent of the OSDF WAC.

APPENDIX B

BORING AND SAMPLE IDENTIFIERS FOR PREDESIGN OF AREA 6 SUBAREAS 3 AND 4

TABLE B-1
ABOVE-WAC BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-AC2-1	A6-AC2-1^2-R A6-AC2-1^3-R A6-AC2-1^4-R	482036.18	1347945.31	0.5 to 1 1 to 1.5 1.5 to 2	TAL A
A6-AC2-2	A6-AC2-2^14-R	482047.73	1347946.75	6.5-7	TAL A
A6-AC2-3	A6-AC2-3^14-R	482037.48	1347956.75	6.5-7	TAL A
A6-AC3-1	A6-AC3-1^3-R	481927.14	1348055.373	1 to 1.5	TAL A
A6-AC3-2	A6-AC3-2^3-R	481932.14	1348055.373	1 to 1.5	TAL A
A6-AC3-3	A6-AC3-3^3-R	481922.14	1348055.373	1 to 1.5	TAL A
A6-AC3-4	A6-AC3-4^3-R	481927.14	1348050.373	1 to 1.5	TAL A
A6-AC4-1	A6-AC4-1^2-R A6-AC4-1^3-R A6-AC4-1^4-R	481721.58	1347743.63	0.5 to 1 1 to 1.5 1.5 to 2	TAL E
A6-AC4-2	A6-AC4-2^1-R	481726.58	1347743.63	0 to 0.5	TAL E
A6-AC4-3	A6-AC4-3^1-R	481716.58	1347743.63	0 to 0.5	TAL E
A6-AC4-4	A6-AC4-4^1-R	481721.58	1347748.63	0 to 0.5	TAL E
A6-AC4-5	A6-AC4-5^1-R	481721.58	1347738.63	0 to 0.5	TAL E
A6-AC6-1	A6-AC6-1^2-R A6-AC6-1^3-R A6-AC6-1^4-R	481392.72	1347258.46	0.5 to 1 1 to 1.5 1.5 to 2	TAL A
A6-AC7-1	A6-AC7-1^2-R A6-AC7-1^3-R A6-AC7-1^4-R	481512.91	1347799.54	0.5 to 1 1 to 1.5 1.5 to 2	TAL A
A6-AC8-1	A6-AC8-1^1-R	481342.94	1347888.43	0 to 0.25	TAL E
A6-AC8-2	A6-AC8-2^1-R	481433.62	1347979.07	0 to 0.25	TAL E
A6-AC8-3	A6-AC8-3^1-R	481564.96	1347891.55	0 to 0.25	TAL E
A6-AC8-4	A6-AC8-4^1-R	481568.09	1347974.38	0 to 0.25	TAL E

Boring ID example: A6-AC4-1^2 = Area 6 – Above-WAC Confirmation zone 4 – boring 1 ^ sample interval 2

TABLE B-2
SUBAREA 3 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA3-1	A6-SA3-1^1-RMP	483609.27	1343930.16	0 to 0.5	TAL A, B, C, E, F
A6-SA3-2	A6-SA3-2^1-RMP	483137.7	1344430.23	0 to 0.5	TAL A, B, C, E, F
A6-SA3-3	A6-SA3-3^1-RMP	482783.32	1345537.92	0 to 0.5	TAL A, B, C, E, F
A6-SA3-4	A6-SA3-4^1-RMP	482622.86	1346062.81	0 to 0.5	TAL A, B, C, E, F
A6-SA3-5	A6-SA3-5^1-RMP	482552.12	1346323.3	0 to 0.5	TAL A, B, C, E, F
A6-SA3-6	A6-SA3-6^1-RMP	482322.83	1347803.76	0 to 0.5	TAL A, B, C, E, F
A6-SA3-7	A6-SA3-7^1-RMP	482435.77	1348466.78	0 to 0.5	TAL A, B, C, E, F
A6-SA3-8	A6-SA3-8^1-RMP	482519.86	1346212.91	0 to 0.5	TAL A, B, C, E, F
A6-SA3-9	A6-SA3-9^1-RMP	482298.01	1346021.88	0 to 0.5	TAL A, B, C, E, F
A6-SA3-10	A6-SA3-10^1-RMP	482110	1346205.16	0 to 0.5	TAL A, B, C, E, F
A6-SA3-11	A6-SA3-11^1-RMP	482109.38	1346467.81	0 to 0.5	TAL A, B, C, E, F
A6-SA3-12	A6-SA3-12^1-RMP	482003.26	1346660.08	0 to 0.5	TAL A, B, C, E, F
A6-SA3-13	A6-SA3-13^1-RMP	481809.65	1346538.52	0 to 0.5	TAL A, B, C, E, F
A6-SA3-14	A6-SA3-14^1-RMP	481741.4	1346431.84	0 to 0.5	TAL A, B, C, E, F
A6-SA3-15	A6-SA3-15^1-RMP	481607.36	1346368.58	0 to 0.5	TAL A, B, C, E, F
A6-SA3-16	A6-SA3-16^1-P	482143.18	1347892.33	0 to 0.5	TAL C
A6-SA3-17	A6-SA3-17^1-P	482133.18	1347892.33	0 to 0.5	TAL C
A6-SA3-18	A6-SA3-18^1-P	482138.18	1347897.33	0 to 0.5	TAL C
A6-SA3-19	A6-SA3-19^1-P	482138.18	1347887.33	0 to 0.5	TAL C
A6-SA3-20	A6-SA3-20^2-P A6-SA3-20^7-P	482138.18	1347892.33	0.5 to 1 3 to 3.5	TAL C
A6-SA3-21	A6-SA3-21^1-M	482470.77	1346660.91	0 to 0.5	TAL F
A6-SA3-22	A6-SA3-22^1-M	482460.77	1346660.91	0 to 0.5	TAL F
A6-SA3-23	A6-SA3-23^1-M	482465.77	1346665.91	0 to 0.5	TAL F
A6-SA3-24	A6-SA3-24^1-M	482465.77	1346655.91	0 to 0.5	TAL F
A6-SA3-25	A6-SA3-25^4-M A6-SA3-25^9-M	482465.77	1346660.91	1.5 to 2 4 to 4.5	TAL F
A6-SA3-26	Samples not used	NA	NA	NA	NA
A6-SA3-27					
A6-SA3-28					
A6-SA3-29					
A6-SA3-30					
A6-SA3-31	A6-SA3-31^1-RM	482400.81	1348273.64	0 to 0.5	TAL B & F
A6-SA3-32	A6-SA3-32^1-RM	482390.81	1348273.64	0 to 0.5	TAL B & F
A6-SA3-33	A6-SA3-33^1-RM	482395.81	1348278.64	0 to 0.5	TAL B & F
A6-SA3-34	A6-SA3-34^1-RM	482395.81	1348268.64	0 to 0.5	TAL B & F

TABLE B-2
SUBAREA 3 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA3-35	A6-SA3-35^1-M	482597.68	1345900.22	0 to 0.5	TAL F
A6-SA3-36	A6-SA3-36^1-M	482586.68	1345900.22	0 to 0.5	TAL F
A6-SA3-37	A6-SA3-37^1-M	482592.68	1345905.22	0 to 0.5	TAL F
A6-SA3-38	A6-SA3-38^1-M	482592.68	1345895.22	0 to 0.5	TAL F
A6-SA3-39	A6-SA3-39^2-M A6-SA3-39^7-M	482592.68	1345900.22	0.5 to 1 3 to 3.5	TAL F
A6-SA3-40	A6-SA3-40^1-P	482481.37	1346501.23	0 to 0.5	TAL C
A6-SA3-41	A6-SA3-41^1-P	482471.37	1346501.23	0 to 0.5	TAL C
A6-SA3-42	A6-SA3-42^1-P	482476.37	1346506.23	0 to 0.5	TAL C
A6-SA3-43	A6-SA3-43^1-P	482476.37	1346596.23	0 to 0.5	TAL C
A6-SA3-44	A6-SA3-44^2-P A6-SA3-44^7-P	482476.37	1346501.23	0.5 to 1 3 to 3.5	TAL C
A6-SA3-45	A6-SA3-45^1-P	482378.67	1346598.43	0 to 0.5	TAL C
A6-SA3-46	A6-SA3-46^1-P	482368.67	1346598.43	0 to 0.5	TAL C
A6-SA3-47	A6-SA3-47^1-P	482373.67	1346603.43	0 to 0.5	TAL C
A6-SA3-48	A6-SA3-48^1-P	482373.67	1346593.43	0 to 0.5	TAL C
A6-SA3-49	A6-SA3-49^2-P A6-SA3-49^7-P	482373.67	1346598.43	0.5 to 1 3 to 3.5	TAL C
A6-SA3-50	A6-SA3-50^1-P	482278.67	1346595.23	0 to 0.5	TAL C
A6-SA3-51	A6-SA3-51^1-P	482268.67	1346595.23	0 to 0.5	TAL C
A6-SA3-52	A6-SA3-52^1-P	482273.67	1346600.23	0 to 0.5	TAL C
A6-SA3-53	A6-SA3-53^1-P	482273.67	1346590.23	0 to 0.5	TAL C
A6-SA3-54	A6-SA3-54^2-P A6-SA3-54^7-P	482273.67	1346595.23	0.5 to 1 3 to 3.5	TAL C
A6-SA3-55	A6-SA3-55^1-P	481878.87	1346584.73	0 to 0.5	TAL C
A6-SA3-56	A6-SA3-56^1-P	481868.87	1346584.73	0 to 0.5	TAL C
A6-SA3-57	A6-SA3-57^1-P	481873.87	1346589.73	0 to 0.5	TAL C
A6-SA3-58	A6-SA3-58^1-P	481873.87	1346579.73	0 to 0.5	TAL C
A6-SA3-59	A6-SA3-59^2-P A6-SA3-59^7-P	481873.87	1346584.73	0.5 to 1 3 to 3.5	TAL C
A6-SA3-60	A6-SA3-60^1-R	482094.99	1346616.79	0 to 0.5	TAL B
A6-SA3-61	A6-SA3-61^1-R	482084.99	1346616.79	0 to 0.5	TAL B
A6-SA3-62	A6-SA3-62^1-R	482089.99	1346621.79	0 to 0.5	TAL B
A6-SA3-63	A6-SA3-63^1-R	482089.99	1346611.79	0 to 0.5	TAL B
A6-SA3-64	A6-SA3-64^2-R A6-SA3-64^7-R	482089.99	1346616.79	0.5 to 1 3 to 3.5	TAL B

TABLE B-2
SUBAREA 3 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA3-65	A6-SA3-65^1-R	482157.17	1346614.53	0 to 0.5	TAL B
A6-SA3-66	A6-SA3-66^1-R	482147.17	1346614.53	0 to 0.5	TAL B
A6-SA3-67	A6-SA3-67^1-R	482152.17	1346619.53	0 to 0.5	TAL B
A6-SA3-68	A6-SA3-68^1-R	482152.17	1346609.53	0 to 0.5	TAL B
A6-SA3-69	A6-SA3-69^2-R A6-SA3-69^7-R	482152.17	1346614.53	0.5 to 1 3 to 3.5	TAL B
A6-SA3-70	A6-SA3-70^1-RM	482388.09	1348217.62	0 to 0.5	TAL A & TAL F
A6-SA3-71	A6-SA3-71^1-RM	482332.92	1348216.69	0 to 0.5	TAL A & TAL F
A6-SA3-72	A6-SA3-72^1-RM	482333.86	1348158.84	0 to 0.5	TAL A & TAL F
A6-SA3-73	A6-SA3-73^1-RM	482382.19	1348161.26	0 to 0.5	TAL A & TAL F
A6-SA3-74	A6-SA3-74^2-RM A6-SA3-74^7-RM	482361.55	1348190.55	0.5 to 1 3 to 3.5	TAL A & TAL F
A6-SA3-75	A6-SA3-75^1-R	482289.17	1348498.62	0 to 0.5	TAL A
A6-SA3-76	A6-SA3-76^1-R	482269.27	1348558.96	0 to 0.5	TAL A
A6-SA3-77	A6-SA3-77^1-R	482227.49	1348470.64	0 to 0.5	TAL A
A6-SA3-78	A6-SA3-78^1-R	482261.83	1348402.65	0 to 0.5	TAL A
A6-SA3-79	A6-SA3-79^3-R A6-SA3-79^8-R	482272.11	1348465.39	1 to 1.5 3.5 to 4	TAL A
A6-SA3-80	A6-SA3-80^3-R A6-SA3-80^8-R	482271.89	1348511.96	1 to 1.5 3.5 to 4	TAL A
A6-SA3-81	A6-SA3-81^1-R	482066.5	1347763.82	0 to 0.5	TAL A
A6-SA3-82	A6-SA3-82^1-R	482098.14	1348131.2	0 to 0.5	TAL A
A6-SA3-83	A6-SA3-83^1-R	482084.98	1348321.99	0 to 0.5	TAL A
A6-SA3-84	A6-SA3-84^1-R	481975.13	1347803.53	0 to 0.5	TAL A
A6-SA3-85	A6-SA3-85^4-R A6-SA3-85^9-R	482005.14	1347936.35	1.5 to 2 4 to 4.5	TAL A
A6-SA3-86	A6-SA3-86^4-R A6-SA3-86^9-R	482060.45	1348074.73	1.5 to 2 4 to 4.5	TAL A

TABLE B-3
SUBAREA 4 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA4-1	A6-SA4-1^1-RMP	481102.6	1347417.6	0 to 0.5	TAL A, B, C, E, F
A6-SA4-2	A6-SA4-2^1-RMP	481102.6	1347520.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-3	A6-SA4-3^1-RMP	481102.6	1347617.92	0 to 0.5	TAL A, B, C, E, F
A6-SA4-4	A6-SA4-4^1-RMP	481021.18	1347418.38	0 to 0.5	TAL A, B, C, E, F
A6-SA4-5	A6-SA4-5^1-RMP	481021.18	1347520.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-6	A6-SA4-6^1-RMP	481021.18	1347617.13	0 to 0.5	TAL A, B, C, E, F
A6-SA4-7	A6-SA4-7^1-RMP	480926.45	1347418.38	0 to 0.5	TAL A, B, C, E, F
A6-SA4-8	A6-SA4-8^1-RMP	480926.45	1347520.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-9	A6-SA4-9^1-RMP	480925.67	1347617.13	0 to 0.5	TAL A, B, C, E, F
A6-SA4-10	A6-SA4-10^1-RMP	481552.02	1347926.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-11	A6-SA4-11^1-RMP	481379.79	1347937.05	0 to 0.5	TAL A, B, C, E, F
A6-SA4-12	A6-SA4-12^1-RMP	481202.08	1347936.27	0 to 0.5	TAL A, B, C, E, F
A6-SA4-13	A6-SA4-13^1-RMP	481035.71	1347953.48	0 to 0.5	TAL A, B, C, E, F
A6-SA4-14	A6-SA4-14^1-RMP	480926.3	1347922.18	0 to 0.5	TAL A, B, C, E, F
A6-SA4-15	A6-SA4-15^1-RMP	480803.59	1347924.53	0 to 0.5	TAL A, B, C, E, F
A6-SA4-16	A6-SA4-16^1-M	481062.87	1347162.64	0 to 0.5	TAL F
A6-SA4-17	A6-SA4-17^1-M	481052.87	1347162.64	0 to 0.5	TAL F
A6-SA4-18	A6-SA4-18^1-M	481057.87	1347167.64	0 to 0.5	TAL F
A6-SA4-19	A6-SA4-19^1-M	481057.87	1347157.64	0 to 0.5	TAL F
A6-SA4-20	A6-SA4-20^2-M A6-SA4-20^7-M	481057.87	1347162.64	0.5 to 1 3 to 3.5	TAL F
A6-SA4-21	A6-SA4-21^1-R A6-SA4-21^5-R A6-SA4-21^11-R A6-SA4-21^21-R A6-SA4-21^31-R	481277.11	1347506.27	0 to 0.5 2 to 2.5 5 to 5.5 10 to 10.5 15 to 15.5	TAL G
A6-SA4-22	A6-SA4-22^1-R A6-SA4-22^5-R A6-SA4-22^11-R A6-SA4-22^21-R A6-SA4-22^31-R	481339.99	1348298.69	0 to 0.5 2 to 2.5 5 to 5.5 10 to 10.5 15 to 15.5	TAL G
A6-SA4-23	A6-SA4-23^4-R A6-SA4-23^9-R	481819.96	1347823.48	1.5 to 2 4 to 4.5	TAL A
A6-SA4-24	A6-SA4-24^4-R A6-SA4-24^9-R	481679.42	1347697.22	1.5 to 2 4 to 4.5	TAL A
A6-SA4-25	A6-SA4-25^4-R A6-SA4-25^9-R	481624.58	1347960.05	1.5 to 2 4 to 4.5	TAL A

TABLE B-3
SUBAREA 4 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA4-26	A6-SA4-26^1-R	481560.2	1347588.47	0 to 0.5	TAL A
A6-SA4-27	A6-SA4-27^1-R	481569.68	1348024.07	0 to 0.5	TAL A
A6-SA4-28	A6-SA4-28^1-R	481487.87	1347921.79	0 to 0.5	TAL A & TAL B
A6-SA4-29	A6-SA4-29^1-R	481347.81	1347869.15	0 to 0.5	TAL A & TAL B
A6-SA4-30	A6-SA4-30^1-R	481325.02	1347353.02	0 to 0.5	TAL A & TAL B
A6-SA4-31	A6-SA4-31^1-R	481145.5	1347114.98	0 to 0.5	TAL A & TAL B
A6-SA4-32	A6-SA4-32^1-R	481042.26	1348253.79	0 to 0.5	TAL A
A6-SA4-33	A6-SA4-33^1-R	480929.01	1348182.34	0 to 0.5	TAL A

APPENDIX C

VARIANCE/FIELD CHANGE NOTICES

VARIANCE/FIELD CHANGE NOTICE LOG FOR PROJECT SPECIFIC PLAN FOR PREDESIGN OF AREA 6 SUBAREAS 3 AND 4 (SUPPLEMENT TO 20300-PSP-0011)

Variance No.	Variance Date	Variance Description	Significant? (Y or N)	Date Signed	Date Distributed	EPA/OEPA Approval
20600-PSP-0013-01	2/10/05	Variance revises Table 2-4 to add the 2 missing scenarios. Appendix A is being revised to add TAL G (thorium-232). Appendix B is being revised to correct the sample identifiers and the TALs. These revisions to this PSP are necessary to ensure that the sampling and analyses are performed correctly.	N	2/10/05	4/7/05	NA
20600-PSP-0013-02	2/25/05	Updates Attachment 3 of V/FCN 20600-PSP 0013-1, Table B-3 Subarea 4 Borings as well as Table 2-3 Unbounded Above-FRL Borings in Subarea 4 and Proposed New Borings from the PSP.	N	3/1/05	4/7/05	NA
20600-PSP-0013-03	3/23/05	Variance documents the collection of uranium samples to provide lateral bounding in the north and east directions at AWAC location CIS_SYSGEN_773. Originally, this point was to be bound using real-time, however, due to the presence of overlying material, real-time cannot be used.	N	3/30/05	4/7/05	NA
20600-PSP-0013-04	3/23/05	Variance documents the collection of samples to provide confirmation that above-WAC uranium material has been excavated at above-WAC location CIS_SYSGEN_717 and, if not, to provide lateral bounding in the north, south, and west directions.	N	3/30/05	4/7/05	NA

VARIANCE / FIELD CHANGE NOTICE	Significant? (Yes or No): NO	V/F: 20600-PSP-0013-1
WBS NO.: PROJECT/DOCUMENT/ECDC # 20600-PSP-0013 Rev.0		**Page: 1 of 8**
PROJECT TITLE: : PSP for Predesign of Area 6 Subareas 3 and 4 (Supplement to 20300-PSP-0011)		**Date: 2/10/05**

VARIANCE / FIELD CHANGE NOTICE (Include justification):

This V/FCN revises Table 2-4, Appendix A, and Appendix B.

In the original Table 2-4 only 3 of the 5 analytical requirements for the soil sampling scenarios were listed. Attachment 1 is the revised Table 2-4.

Target Analyte List (TAL) G (thorium-232) is being added. Attachment 2 is the revised Appendix A.

Appendix B is also being updated to reflect the appropriate TALs and correct some of the sample identifiers. Attachment 3 is the revised Appendix B with the changes in bold.

All 3 attachments will replace what is currently in the PSP.

Justification:
Table 2-4 is being revised to add the 2 missing scenarios. Appendix A is being revised to add TAL G (thorium-232). Appendix B is being revised to correct the sample identifiers and the TALs. These revisions to this PSP are necessary to ensure that the sampling and analyses are performed correctly.

REQUESTED BY: Krista Flaugh Date: 2/10/05

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE: R. Fiske	2/10/05	X	PROJECT MANAGER: J.D. Chase	2/10/05
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION MANAGER: F. Miller	2/10/05
X	ANALYTICAL CUSTOMER SUPPORT:	2-10-05		RTIMP Manager	
	WAO		X	Sampling Manager: T. Buhrlage for T.E.B	2/10/05
VARIANCE/FCN APPROVED [X]YES [ ]NO			REVISION REQUIRED: [ ]YES [x]NO		

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeannie Rosser	OTHER:
QUALITY ASSURANCE:	CHARACTERIZATION MANAGER: Frank Miller	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

ATTACHMENT 1

TABLE 2-4
ANALYTICAL REQUIREMENTS FOR SOIL SAMPLES

Analyte [a]	Method	Matrix	Holding Time	Preservative	Container [b]	Minimum Mass
Inorganics (TAL F)	ICP-OES or GFAA	Solid	6 months	Cool, 4°C	Plastic core liner or glass or polyethylene sample container	50 g
Radiological (TAL A, B, E, G, or AB)	Gamma Spec, Alpha Spec, LSC, or GPC	Solid	12 Months	None	Plastic core liner or glass or polyethylene sample container	400 g
Pesticides/PCBs (TAL C)	GC	Solid	14 days	Cool, 4°C	Glass with Teflon-lined lid	200 g
Rads and Metals (TALs AF or BF)	Gamma Spec, Alpha Spec, LSC, or GPC ICP or GFAA	Solid	12 months 6 months	Cool, 4°C	Plastic core liner or glass or polyethylene sample container	400 g
Rads/Metals/PCBs and PAHs (TAL ABCEF)	Gamma Spec, Alpha Spec, LSC, or GPC ICP or GFAA GC	Solid	12 months 6 months 14 days	Cool, 4°C	Glass with Teflon-lined lid	500 g

GFAA – graphite furnace atomic absorption
GC - gas chromatograph
GPC - gas proportional counter
ICP - inductively coupled plasma
LSC - liquid scintillation counter

[a] Samples will be analyzed according to Analytical Support Level (ASL) B requirements but the minimum detection level may cause some analyses to be considered ASL E.

[b] Sample container types may be changed at the direction of the Field Sampling Lead, as long as the volume requirements, container compatibility requirements, and SCQ requirements are met.

ATTACHMENT 2

APPENDIX A
TARGET ANALYTE LISTS FOR PREDESIGN OF AREA 6 SUBAREAS 3 AND 4

TAL A
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	WAC	FRL	Requested MDL
Total Uranium	1030 mg/kg	82 mg/kg	8.2 mg/kg

TAL B
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	FRL	Requested MDL
Radium-226	1.7 pCi/g	0.17 pCi/g
Thorium-228	1.7 pCi/g	0.17 pCi/g
Thorium-232	1.5 pCi/g	0.15 pCi/g

TAL C
Soil Analysis, Off-site, (ASL B)

Analyte (PCB)	FRL	Requested MDL
Aroclor-1254	0.13 mg/kg	0.013 mg/kg
Dieldrin	0.015 mg/kg	0.0015 mg/kg

TAL E
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	FRL	Requested MDL
Technetium-99	30 pCi/g	3.0 pCi/g

TAL F
Soil Analysis, Off-site, (ASL B)

Analyte (Inorganics)	FRL	Requested MDL
Arsenic	12 mg/kg	1.2 mg/kg
Beryllium	1.5 mg/kg	0.15 mg/kg

TAL G
Soil Analysis, Off-site, (ASL B)

Analyte (Rad)	FRL	Requested MDL
Thorium-232	1.5 pCi/g	0.15 pCi/g

MDL – minimum detection level

*If the WAC is lower than the established FRL, the MDL will be set at 10 percent of the OSDF WAC.

ATTACHMENT 3

TABLE B-1
ABOVE-WAC BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-AC2-1	***A6-AC2-1^2-R*** ***A6-AC2-1^3-R*** ***A6-AC2-1^4-R***	482036.18	1347945.31	0.5 to 1 1 to 1.5 1.5 to 2	TAL A
A6-AC4-1	***A6-AC4-1^2-R*** ***A6-AC4-1^3-R*** ***A6-AC4-1^4-R***	481721.58	1347743.63	0.5 to 1 1 to 1.5 1.5 to 2	TAL E
A6-AC4-2	***A6-AC4-2^1-R***	481726.58	1347743.63	0 to 0.5	TAL E
A6-AC4-3	***A6-AC4-3^1-R***	481716.58	1347743.63	0 to 0.5	TAL E
A6-AC4-4	***A6-AC4-4^1-R***	481721.58	1347748.63	0 to 0.5	TAL E
A6-AC4-5	***A6-AC4-5^1-R***	481721.58	1347738.63	0 to 0.5	TAL E
A6-AC6-1	***A6-AC6-1^2-R*** ***A6-AC6-1^3-R*** ***A6-AC6-1^4-R***	481392.72	1347258.46	0.5 to 1 1 to 1.5 1.5 to 2	TAL A
A6-AC7-1	***A6-AC7-1^2-R*** ***A6-AC7-1^3-R*** ***A6-AC7-1^4-R***	481512.91	1347799.54	0.5 to 1 1 to 1.5 1.5 to 2	TAL A
A6-AC8-1	***A6-AC8-1^1-R***	481342.94	1347888.43	0 to 0.25	TAL E
A6-AC8-2	***A6-AC8-2^1-R***	481433.62	1347979.07	0 to 0.25	TAL E
A6-AC8-3	***A6-AC8-3^1-R***	481564.96	1347891.55	0 to 0.25	TAL E
A6-AC8-4	***A6-AC8-4^1-R***	481568.09	1347974.38	0 to 0.25	TAL E

ATTACHMENT 3

TABLE B-2
SUBAREA 3 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA3-1	***A6-SA3-1^1-RMP***	483609.27	1343930.16	0 to 0.5	TAL A, B, C, E, F
A6-SA3-2	***A6-SA3-2^1-RMP***	483137.7	1344430.23	0 to 0.5	TAL A, B, C, E, F
A6-SA3-3	***A6-SA3-3^1-RMP***	482783.32	1345537.92	0 to 0.5	TAL A, B, C, E, F
A6-SA3-4	***A6-SA3-4^1-RMP***	482622.86	1346062.81	0 to 0.5	TAL A, B, C, E, F
A6-SA3-5	***A6-SA3-5^1-RMP***	482552.12	1346323.3	0 to 0.5	TAL A, B, C, E, F
A6-SA3-6	***A6-SA3-6^1-RMP***	482322.83	1347803.76	0 to 0.5	TAL A, B, C, E, F
A6-SA3-7	***A6-SA3-7^1-RMP***	482435.77	1348466.78	0 to 0.5	TAL A, B, C, E, F
A6-SA3-8	***A6-SA3-8^1-RMP***	482519.86	1346212.91	0 to 0.5	TAL A, B, C, E, F
A6-SA3-9	***A6-SA3-9^1-RMP***	482298.01	1346021.88	0 to 0.5	TAL A, B, C, E, F
A6-SA3-10	***A6-SA3-10^1-RMP***	482110	1346205.16	0 to 0.5	TAL A, B, C, E, F
A6-SA3-11	***A6-SA3-11^1-RMP***	482109.38	1346467.81	0 to 0.5	TAL A, B, C, E, F
A6-SA3-12	***A6-SA3-12^1-RMP***	482003.26	1346660.08	0 to 0.5	TAL A, B, C, E, F
A6-SA3-13	***A6-SA3-13^1-RMP***	481809.65	1346538.52	0 to 0.5	TAL A, B, C, E, F
A6-SA3-14	***A6-SA3-14^1-RMP***	481741.4	1346431.84	0 to 0.5	TAL A, B, C, E, F
A6-SA3-15	***A6-SA3-15^1-RMP***	481607.36	1346368.58	0 to 0.5	TAL A, B, C, E, F
A6-SA3-16	A6-SA3-16^1-P	482143.18	1347892.33	0 to 0.5	TAL C
A6-SA3-17	A6-SA3-17^1-P	482133.18	1347892.33	0 to 0.5	TAL C
A6-SA3-18	A6-SA3-18^1-P	482138.18	1347897.33	0 to 0.5	TAL C
A6-SA3-19	A6-SA3-19^1-P	482138.18	1347887.33	0 to 0.5	TAL C
A6-SA3-20	A6-SA3-20^2-P A6-SA3-20^7-P	482138.18	1347892.33	0.5 to 1 3 to 3.5	TAL C
A6-SA3-21	A6-SA3-21^1-M	482470.77	1346660.91	0 to 0.5	TAL F
A6-SA3-22	A6-SA3-22^1-M	482460.77	1346660.91	0 to 0.5	TAL F
A6-SA3-23	A6-SA3-23^1-M	482465.77	1346665.91	0 to 0.5	TAL F
A6-SA3-24	A6-SA3-24^1-M	482465.77	1346655.91	0 to 0.5	TAL F
A6-SA3-25	A6-SA3-25^4-M A6-SA3-25^9-M	482465.77	1346660.91	1.5 to 2 4 to 4.5	TAL F
A6-SA3-26 A6-SA3-27 A6-SA3-28 A6-SA3-29 A6-SA3-30	Samples not used	NA	NA	NA	NA
A6-SA3-31	A6-SA3-31^1-RM	482400.81	1348273.64	0 to 0.5	TAL B & F
A6-SA3-32	A6-SA3-32^1-RM	482390.81	1348273.64	0 to 0.5	TAL B & F
A6-SA3-33	A6-SA3-33^1-RM	482395.81	1348278.64	0 to 0.5	TAL B & F
A6-SA3-34	A6-SA3-34^1-RM	482395.81	1348268.64	0 to 0.5	TAL B & F
A6-SA3-35	A6-SA3-35^1-M	482597.68	1345900.22	0 to 0.5	TAL F
A6-SA3-36	A6-SA3-36^1-M	482586.68	1345900.22	0 to 0.5	TAL F
A6-SA3-37	A6-SA3-37^1-M	482592.68	1345905.22	0 to 0.5	TAL F
A6-SA3-38	A6-SA3-38^1-M	482592.68	1345895.22	0 to 0.5	TAL F
A6-SA3-39	A6-SA3-39^2-M A6-SA3-39^7-M	482592.68	1345900.22	0.5 to 1 3 to 3.5	TAL F
A6-SA3-40	A6-SA3-40^1-P	482481.37	1346501.23	0 to 0.5	TAL C
A6-SA3-41	A6-SA3-41^1-P	482471.37	1346501.23	0 to 0.5	TAL C
A6-SA3-42	A6-SA3-42^1-P	482476.37	1346506.23	0 to 0.5	TAL C
A6-SA3-43	A6-SA3-43^1-P	482476.37	1346496.23	0 to 0.5	TAL C

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ATTACHMENT 3

TABLE B-2
SUBAREA 3 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA3-44	A6-SA3-44^2-P A6-SA3-44^7-P	482476.37	1346501.23	0.5 to 1 3 to 3.5	TAL C
A6-SA3-45	A6-SA3-45^1-P	482378.67	1346598.43	0 to 0.5	TAL C
A6-SA3-46	A6-SA3-46^1-P	482368.67	1346598.43	0 to 0.5	TAL C
A6-SA3-47	A6-SA3-47^1-P	482373.67	1346603.43	0 to 0.5	TAL C
A6-SA3-48	A6-SA3-48^1-P	482373.67	1346593.43	0 to 0.5	TAL C
A6-SA3-49	A6-SA3-49^2-P A6-SA3-49^7-P	482373.67	1346598.43	0.5 to 1 3 to 3.5	TAL C
A6-SA3-50	A6-SA3-50^1-P	482278.67	1346595.23	0 to 0.5	TAL C
A6-SA3-51	A6-SA3-51^1-P	482268.67	1346595.23	0 to 0.5	TAL C
A6-SA3-52	A6-SA3-52^1-P	482273.67	1346600.23	0 to 0.5	TAL C
A6-SA3-53	A6-SA3-53^1-P	482273.67	1346590.23	0 to 0.5	TAL C
A6-SA3-54	A6-SA3-54^2-P A6-SA3-54^7-P	482273.67	1346595.23	0.5 to 1 3 to 3.5	TAL C
A6-SA3-55	A6-SA3-55^1-P	481878.87	1346584.73	0 to 0.5	TAL C
A6-SA3-56	A6-SA3-56^1-P	481868.87	1346584.73	0 to 0.5	TAL C
A6-SA3-57	A6-SA3-57^1-P	481873.87	1346589.73	0 to 0.5	TAL C
A6-SA3-58	A6-SA3-58^1-P	481873.87	1346579.73	0 to 0.5	TAL C
A6-SA3-59	A6-SA3-59^2-P A6-SA3-59^7-P	481873.87	1346584.73	0.5 to 1 3 to 3.5	TAL C
A6-SA3-60	A6-SA3-60^1-R	482094.99	1346616.79	0 to 0.5	TAL B
A6-SA3-61	A6-SA3-61^1-R	482084.99	1346616.79	0 to 0.5	TAL B
A6-SA3-62	A6-SA3-62^1-R	482089.99	1346621.79	0 to 0.5	TAL B
A6-SA3-63	A6-SA3-63^1-R	482089.99	1346611.79	0 to 0.5	TAL B
A6-SA3-64	A6-SA3-64^2-R A6-SA3-64^7-R	482089.99	1346616.79	0.5 to 1 3 to 3.5	TAL B
A6-SA3-65	A6-SA3-65^1-R	482157.17	1346614.53	0 to 0.5	TAL B
A6-SA3-66	A6-SA3-66^1-R	482147.17	1346614.53	0 to 0.5	TAL B
A6-SA3-67	A6-SA3-67^1-R	482152.17	1346619.53	0 to 0.5	TAL B
A6-SA3-68	A6-SA3-68^1-R	482152.17	1346609.53	0 to 0.5	TAL B
A6-SA3-69	A6-SA3-69^2-R A6-SA3-69^7-R	482152.17	1346614.53	0.5 to 1 3 to 3.5	TAL B
A6-SA3-70	***A6-SA3-70^1-RM***	482388.09	1348217.62	0 to 0.5	TAL A & TAL F
A6-SA3-71	***A6-SA3-71^1-RM***	482332.92	1348216.69	0 to 0.5	TAL A & TAL F
A6-SA3-72	***A6-SA3-72^1-RM***	482333.86	1348158.84	0 to 0.5	TAL A & TAL F
A6-SA3-73	***A6-SA3-73^1-RM***	482382.19	1348161.26	0 to 0.5	TAL A & TAL F
A6-SA3-74	***A6-SA3-74^2-RM*** ***A6-SA3-74^7-RM***	482361.55	1348190.55	0.5 to 1 3 to 3.5	TAL A & TAL F
A6-SA3-75	***A6-SA3-75^1-R***	482289.17	1348498.62	0 to 0.5	TAL A
A6-SA3-76	***A6-SA3-76^1-R***	482269.27	1348558.96	0 to 0.5	TAL A
A6-SA3-77	***A6-SA3-77^1-R***	482227.49	1348470.64	0 to 0.5	TAL A
A6-SA3-78	***A6-SA3-78^1-R***	482261.83	1348402.65	0 to 0.5	TAL A
A6-SA3-79	***A6-SA3-79^3-R*** ***A6-SA3-79^8-R***	482272.11	1348465.39	1 to 1.5 3.5 to 4	TAL A
A6-SA3-80	***A6-SA3-80^3-R*** ***A6-SA3-80^8-R***	482271.89	1348511.96	1 to 1.5 3.5 to 4	TAL A
A6-SA3-81	***A6-SA3-81^1-R***	482066.5	1347763.82	0 to 0.5	TAL A

TABLE B-2
SUBAREA 3 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA3-82	***A6-SA3-82^1-R***	482098.14	1348131.2	0 to 0.5	TAL A
A6-SA3-83	***A6-SA3-83^1-R***	482084.98	1348321.99	0 to 0.5	TAL A
A6-SA3-84	***A6-SA3-84^1-R***	481975.13	1347803.53	0 to 0.5	TAL A
A6-SA3-85	***A6-SA3-85^4-R*** ***A6-SA3-85^9-R***	482005.14	1347936.35	1.5 to 2 4 to 4.5	TAL A
A6-SA3-86	***A6-SA3-86^4-R*** ***A6-SA3-86^9-R***	482060.45	1348074.73	1.5 to 2 4 to 4.5	TAL A

ATTACHMENT 3

TABLE B-3
SUBAREA 4 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA4-1	***A6-SA4-1^1-RMP***	481102.6	1347417.6	0 to 0.5	TAL A, B, C, E, F
A6-SA4-2	***A6-SA4-2^1-RMP***	481102.6	1347520.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-3	***A6-SA4-3^1-RMP***	481102.6	1347617.92	0 to 0.5	TAL A, B, C, E, F
A6-SA4-4	***A6-SA4-4^1-RMP***	481021.18	1347418.38	0 to 0.5	TAL A, B, C, E, F
A6-SA4-5	***A6-SA4-5^1-RMP***	481021.18	1347520.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-6	***A6-SA4-6^1-RMP***	481021.18	1347617.13	0 to 0.5	TAL A, B, C, E, F
A6-SA4-7	***A6-SA4-7^1-RMP***	480926.45	1347418.38	0 to 0.5	TAL A, B, C, E, F
A6-SA4-8	***A6-SA4-8^1-RMP***	480926.45	1347520.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-9	***A6-SA4-9^1-RMP***	480925.67	1347617.13	0 to 0.5	TAL A, B, C, E, F
A6-SA4-10	***A6-SA4-10^1-RMP***	481552.02	1347926.88	0 to 0.5	TAL A, B, C, E, F
A6-SA4-11	***A6-SA4-11^1-RMP***	481379.79	1347937.05	0 to 0.5	TAL A, B, C, E, F
A6-SA4-12	***A6-SA4-12^1-RMP***	481202.08	1347936.27	0 to 0.5	TAL A, B, C, E, F
A6-SA4-13	***A6-SA4-13^1-RMP***	481035.71	1347953.48	0 to 0.5	TAL A, B, C, E, F
A6-SA4-14	***A6-SA4-14^1-RMP***	480926.3	1347922.18	0 to 0.5	TAL A, B, C, E, F
A6-SA4-15	***A6-SA4-15^1-RMP***	480803.59	1347924.53	0 to 0.5	TAL A, B, C, E, F
A6-SA4-16	A6-SA4-16^1-M	481062.87	1347162.64	0 to 0.5	TAL F
A6-SA4-17	A6-SA4-17^1-M	481052.87	1347162.64	0 to 0.5	TAL F
A6-SA4-18	A6-SA4-18^1-M	481057.87	1347167.64	0 to 0.5	TAL F
A6-SA4-19	A6-SA4-19^1-M	481057.87	1347157.64	0 to 0.5	TAL F
A6-SA4-20	A6-SA4-20^2-M A6-SA4-20^7-M	481057.87	1347162.64	0.5 to 1 3 to 3.5	TAL F
A6-SA4-21	A6-SA4-21^1-R A6-SA4-21^31-R	481277.11	1347506.27	0 to 0.5 15 to 15.5	***TAL G***
A6-SA4-22	A6-SA4-22^1-R A6-SA4-22^5-R A6-SA4-22^11-R A6-SA4-22^21-R A6-SA4-22^31-R	481339.99	1348298.69	0 to 0.5 2 to 2.5 5 to 5.5 10 to 10.5 15 to 15.5	***TAL G***
A6-SA4-23	***A6-SA4-23^4-R*** ***A6-SA4-23^9-R***	481819.96	1347823.48	1.5 to 2 4 to 4.5	TAL A
A6-SA4-24	***A6-SA4-24^4-R*** ***A6-SA4-24^9-R***	481679.42	1347697.22	1.5 to 2 4 to 4.5	TAL A
A6-SA4-25	***A6-SA4-25^4-R*** ***A6-SA4-25^9-R***	481624.58	1347960.05	1.5 to 2 4 to 4.5	TAL A
A6-SA4-26	***A6-SA4-26^1-R***	481560.2	1347588.47	0 to 0.5	TAL A
A6-SA4-27	***A6-SA4-27^1-R***	481569.68	1348024.07	0 to 0.5	TAL A
A6-SA4-28	***A6-SA4-28^1-R***	481487.87	1347921.79	0 to 0.5	TAL A & TAL B
A6-SA4-29	***A6-SA4-29^1-R***	481347.81	1347869.15	0 to 0.5	TAL A & TAL B
A6-SA4-30	***A6-SA4-30^1-R***	481325.02	1347353.02	0 to 0.5	TAL A & TAL B
A6-SA4-31	***A6-SA4-31^1-R***	481145.5	1347114.98	0 to 0.5	TAL A & TAL B
A6-SA4-32	***A6-SA4-32^1-R***	481042.26	1348253.79	0 to 0.5	TAL A
A6-SA4-33	***A6-SA4-33^1-R***	480929.01	1348182.34	0 to 0.5	TAL A

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VARIANCE / FIELD CHANGE NOTICE	Significant? (Yes or No): NO	V/F: 20600-PSP-0013-2
WBS NO.: PROJECT/DOCUMENT/ECDC # 20600-PSP-0013 Rev.0		Page: 1 of 4
PROJECT TITLE: PSP for Predesign of Area 6 Subareas 3 and 4 (Supplement to 20300-PSP-0011)		Date: 2/25/05

VARIANCE / FIELD CHANGE NOTICE (Include justification):

This V/FCN updates Attachment 3 of V/FCN 20600-PSP 0013-1, Table B-3 Subarea 4 Borings as well as Table 2-3 Unbounded Above-FRL Borings in Subarea 4 and Proposed New Borings from the PSP. Three additional sampling intervals are being collected from boring A6-SA4-21 (see Attachment 2). The New Predesign Boring assigned to Historical Boring 11072 is A6-SA4-22 and the New Predesign Boring assigned to Historical Boring 11077 is A6-SA4-21 contrary to what is stated in Table 2-3 (see Attachment 1).

See Attachment 3 for sampling and analytical requirements and TAL G.

Justification:

Due to a typographical error, boring A6-SA4-22 was incorrectly placed and sampled at historical boring 11072 when in fact it should have been placed at historical boring 11077. Five sampling intervals were collected from this predesign boring (A6-SA4-22) when only two intervals (0-0.5 and 15-15.5) should have been sampled. However, the two intervals that should have been sampled were included in the five intervals that were actually sampled.

Also, boring A6-SA4-21 was incorrectly placed at historical boring 11077 when in fact it should have been placed at historical boring 11072. However, boring A6-SA4-21 has not been sampled. The correct intervals will be collected, with this variance, when boring A6-SA4-21 is sampled.

REQUESTED BY: Krista Flaugh Date: 2/25/05

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE: R. Friske	3-1-05	X	PROJECT MANAGER: L.D. Chou	3/4/05
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION MANAGER: F. Miller	2/25/05
X	ANALYTICAL CUSTOMER SUPPORT:	3/1/05		RTIMP Manager	
	WAO		X	Sampling Manager: T. Buhrlage	3/1/05
VARIANCE/FCN APPROVED [X]YES [ ]NO			REVISION REQUIRED: [ ]YES [x]NO		

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeannie Rosser	OTHER:
QUALITY ASSURANCE:	CHARACTERIZATION MANAGER: Frank Miller	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

ATTACHMENT 1

TABLE 2-3
UNBOUNDED ABOVE-FRL BORINGS IN SUBAREA 4 AND PROPOSED NEW BORINGS

Historical Boring	Sample Interval feet below surface	Contaminant	Result (mg/kg)	New Borings
WPA15	0 to 0.5	Arsenic	28.5	A6-SA4-16 A6-SA4-17 A6-SA4-18 A6-SA4-19 A6-SA4-20
11072	0 to 0.5 15 to 15.5	Thorium, total	18 18	**A6-SA4-22**
11077	0 to 0.5 2 to 2.5 5 to 5.5 10 to 10.5 15 to 15.5	Thorium, total	18 18 18 18 18	**A6-SA4-21**

ATTACHMENT 2
TABLE B-3
SUBAREA 4 BORINGS

Boring	Sample Identification	Northing	Easting	Depth to Sample, feet	Analysis
A6-SA4-21	A6-SA4-21^1-R **A6-SA4-21^5-R** **A6-SA4-21^11-R** **A6-SA4-21^21-R** A6-SA4-21^31-R	481277.11	1347506.27	0 to 0.5 **2 to 2.5** **5 to 5.5** **10 to 10.5** 15 to 15.5	TAL G
A6-SA4-22	A6-SA4-22^1-R A6-SA4-22^5-R A6-SA4-22^11-R A6-SA4-22^21-R A6-SA4-22^31-R	481339.99	1348298.69	0 to 0.5 2 to 2.5 5 to 5.5 10 to 10.5 15 to 15.5	TAL G

ATTACHMENT 3
Sampling and Analytical Requirements

Analyte [a]	Method	Matrix	Holding Time	Preservative	Container [b]	Minimum Mass
Rads (TAL G)	Gamma Spec, Alpha Spec, LSC, or GPC	Solid	12 Months	None	Plastic core liner or glass or polyethylene sample container	400 g

[a] Samples will be analyzed according to Analytical Support Level (ASL) B requirements but the minimum detection level may cause some analyses to be considered ASL E.
[b] Sample container types may be changed at the direction of the Field Sampling Lead, as long as the volume requirements, container compatibility requirements, and SCQ requirements are met.

TAL G

Analyte (Rad)	FRL	Requested MDL
Thorium-232	1.5 pCi/g	0.15 pCi/g

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VARIANCE / FIELD CHANGE NOTICE	Significant? (Yes or No): NO	V/F: 20600-PSP-0013-03
WBS NO.: PROJECT/DOCUMENT/ECDC # 20600-PSP-0013 Rev.0		Page: 1 of 3
PROJECT TITLE: PSP for Predesign of Area 6 Subareas 3 and 4 (Supplement to 20300-PSP-0011)		Date: 3/23/05

VARIANCE / FIELD CHANGE NOTICE (Include justification):

EXCAVATION CONTROL SAMPLING

This V/FCN documents the collection of uranium samples to provide lateral bounding in the north and east directions at the unbounded above-WAC uranium location, boring CIS_SYSGEN_773. A historical above-WAC total uranium result of 2120 mg/kg was found in the 0 to 0.17-foot interval at this location. The uranium sample at the proposed location, boring A6-AC2-1 per 20600-PSP-0013, cannot be collected due to the presence of overlying railroad tracks. For this reason two samples will be collected north and east of historical boring CIS_SYSGEN_773. These borings will be placed as close as possible to the original historical boring. Boring A6-AC2-2 will be placed to the north and boring A6-AC2-3 will be placed to the east. The area to the west and south of this location is currently an above-WAC stockpile area. See Figure 1.

The current MSL at the proposed locations (borings A6-AC2-2 and A6-AC2-3) is 585 feet. The historical MSL for this location is 578.6 feet. Based off the historical and current MSLs, the samples will be collected from the 6.5 to 7-foot interval, the same interval as the historical above-WAC sample.

See Attachment 1 for sampling and analytical requirements and TAL A. and the sampling table. KEF 4/1/05

The sample IDs shall be A6-AC2-2^14-R, A6-AC2-3^14-R, etc.
Where:
A6 = Area 6
AC2 = Above-WAC Confirmation Zone 2
~~1~~ 2, etc. = Consecutive Sample Numbers (Locations)
14, etc. = The number that indicates the depth interval of the sample from the soil surface
R = radionuclide analysis

Surveying required: Yes. Surveyors shall survey the sampling locations prior to sample collection.
Field QC samples required: No
Field data validation: Yes
Analytical data validation: No
Off-site data package requirements (if applicable): ASL B

Justification:
Variance documents the collection of uranium samples to provide lateral bounding in the north and east directions at AWAC location CIS_SYSGEN_773. Originally, this point was to be bound using real-time, however, due to the presence of overlying material, real-time cannot be used.

REQUESTED BY: Krista Flaugh Date: 3/28/05

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE: R. Fricke	3/30/05	X	PROJECT MANAGER: J.D. Chase	3/29/05
	DATA QUALITY MANAGEMENT:		X	CHARACTERIZATION MANAGER: F. Miller	3/29/05
X	ANALYTICAL CUSTOMER SUPPORT:	3-30-05		RTIMP Manager	
X	WAC	3-29-05	X	Sampling Manager: T. Bunnage	3/29/05

VARIANCE/FCN APPROVED [X]YES [ ]NO REVISION REQUIRED: [ ]YES [x]NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeannie Rosser	OTHER:
QUALITY ASSURANCE:	CHARACTERIZATION MANAGER: Frank Miller	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

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TAL A, Soil Analysis, Off-site, ASL B

Component	WAC	FRL	MDL
Total Uranium	1030 mg/kg	82 mg/kg	8.2 mg/kg

SAMPLING AND ANALYTICAL REQUIREMENTS

Analyte	Sample Method	Lab	Preservative	Holding Time	Container	Sample Volume/Mass	Matrix
TAL A	Gamma Spec	Offsite	None	12 months	Plastic core liner or glass or polyethylene sample container	300 g	Solid

SAMPLING TABLE

Location	Sample Interval (feet)	Sample ID	TAL	Northing	Easting
A6-AC2-2	6.5-7.0	A6-AC2-2^14-R	A	482047.661	1347946.732
A6-AC2-3	6.5-7.0	A6-AC2-3^14-R	A	482037.385	1347956.747

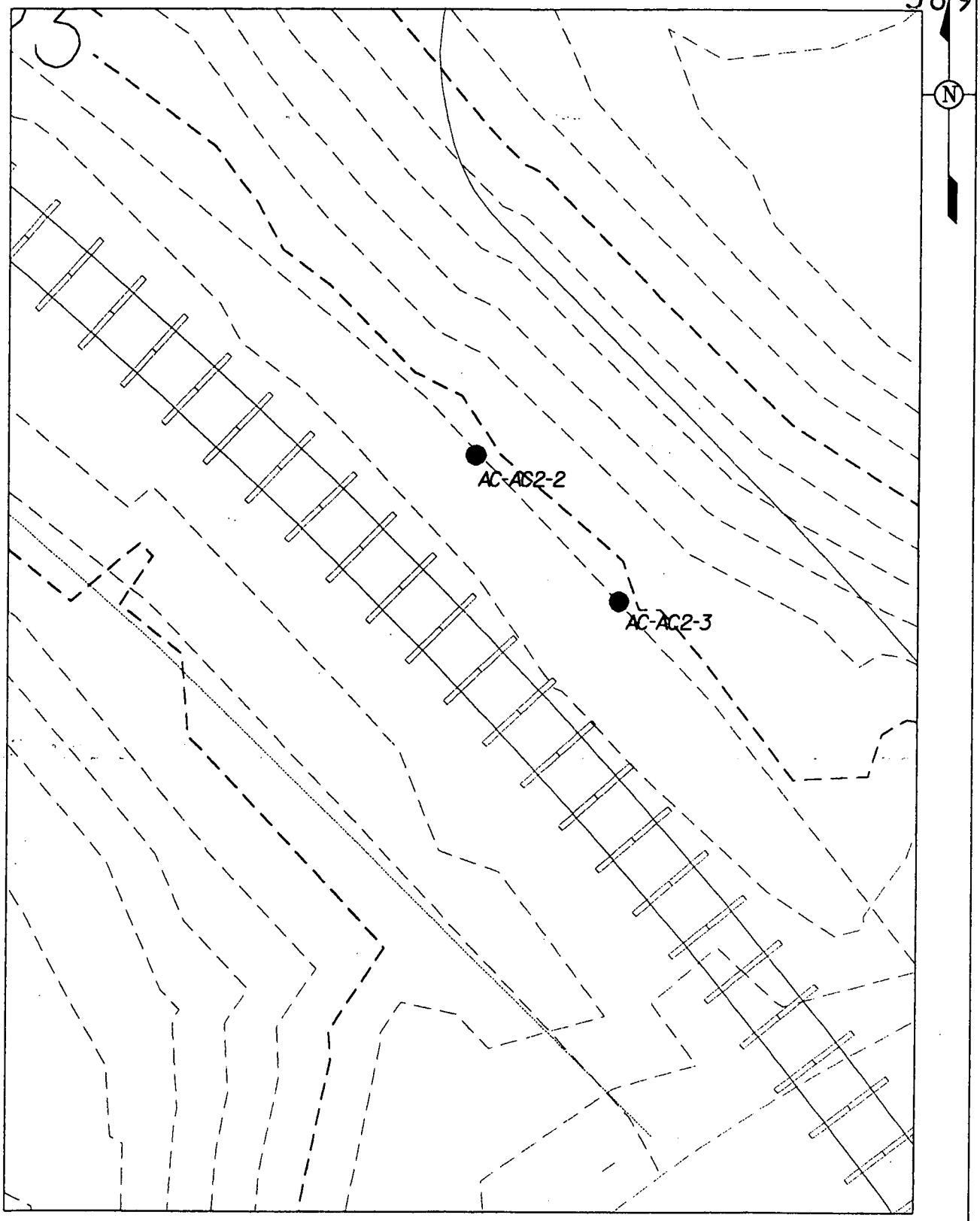


FIGURE 1. 20600-PSP-0013-03

VARIANCE / FIELD CHANGE NOTICE	Significant? (Yes or No): NO	V/F: 20600-PSP-0013-04
WBS NO.: PROJECT/DOCUMENT/ECDC # 20600-PSP-0013 Rev.0		Page: 1 of 3
PROJECT TITLE: PSP for Predesign of Area 6 Subareas 3 and 4 (Supplement to 20300-PSP-0011)		Date: 3/23/05 5895

VARIANCE / FIELD CHANGE NOTICE (Include justification):

EXCAVATION CONTROL SAMPLING

This V/FCN documents the collection of samples to provide confirmation that above-WAC uranium material has been excavated at above-WAC location, boring CIS_SYSGEN_717, during the construction of the SWM Pond, and, if not, to provide lateral bounding in the north, south, and west directions. A historical above-WAC total uranium result of 1110 mg/kg was found in the 0 to 0.17-foot interval at this location. Boring A6-AC3-1 will be placed at the above-WAC historical location. Three borings will be placed five feet from the original above-WAC boring - boring A6-AC3-2 to the north, A6-AC3-3 to the south, and A6-AC3-4 to the west. See Figure 1. A boring cannot be placed east of this location due to the proximity of the location to the SWM Pond.

The current MSL at the proposed locations is 582.5 feet. The historical MSL for this location is 581.3 feet. Based off the historical and current MSLs, the samples will be collected from the 1 to 1.5-foot interval, the same interval as the historical above-WAC sample.

See Attachment 1 for sampling and analytical requirements and TAL A and the sampling table. Ref 4/1/05

The sample IDs shall be A6-AC3-1^3-R, A6-AC3-2^3-R, etc.
Where:
A6 = Area 6
AC3 = Above-WAC Confirmation Zone 3
1, etc. = Consecutive Sample Numbers (Locations)
3, etc. = The number that indicates the depth interval of the sample from the soil surface
R = radionuclide analysis

Surveying required: Yes. Surveyors shall survey the sampling locations prior to sample collection.
Field QC samples required: No
Field data validation: Yes
Analytical data validation: No
Off-site data package requirements (if applicable): ASL B

Justification:
Variance documents the collection of samples to provide confirmation that above-WAC uranium material has been excavated at above-WAC location CIS_SYSGEN_717 and, if not, to provide lateral bounding in the north, south, and west directions.

REQUESTED BY: Krista Flaugh Date: 3/28/05

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE: R. Fiske	3/29/05	X	PROJECT MANAGER: J.D. Chou	3/29/05
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION MANAGER: F. Miller	3/29/05
X	ANALYTICAL CUSTOMER SUPPORT:	3-30-05		RTIMP Manager	
X	WAO	3-29-05	X	Sampling Manager: T. Buhrlage	3/29/05

VARIANCE/FCN APPROVED [X]YES [ ]NO REVISION REQUIRED: [ ]YES [x]NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeannie Rosser	OTHER:
QUALITY ASSURANCE:	CHARACTERIZATION MANAGER: Frank Miller	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

TAL A, Soil Analysis, Off-site, ASL B

Component	WAC	FRL	MDL
Total Uranium	1030 mg/kg	82 mg/kg	8.2 mg/kg

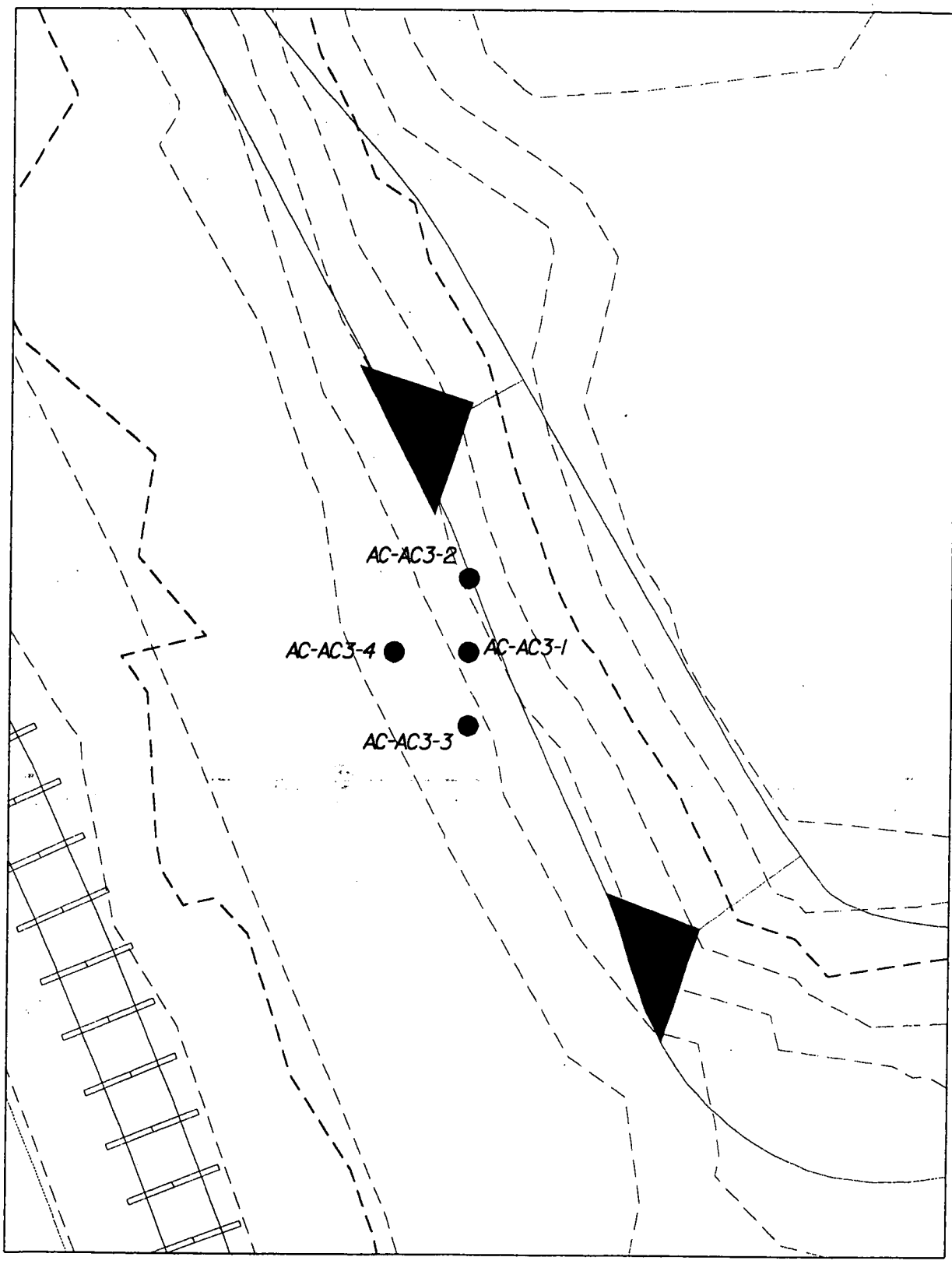
SAMPLING AND ANALYTICAL REQUIREMENTS

Analyte	Sample Method	Lab	Preservative	Holding Time	Container	Sample Volume/Mass	Matrix
TAL A	Gamma Spec	Offsite	None	12 months	Plastic core liner or glass or polyethylene sample container	300 g	Solid

SAMPLING TABLE

Location	Sample Interval (feet)	Sample ID	TAL	Northing	Easting
A6-AC3-1	1.0-1.5	A6-AC3-1^3-R	A	481927.341	1348055.404
A6-AC3-2	1.0-1.5	A6-AC3-2^3-R	A	481932.112	1348055.385
A6-AC3-3	1.0-1.5	A6-AC3-3^3-R	A	481922.102	1348055.373
A6-AC3-4	1.0-1.5	A6-AC3-4^3-R	A	481927.117	1348050.421

= 5895



v:\82fm12\dgn\ac6_136.dgn

STATE PLANAR COORDINATE SYSTEM 1983

23-MAR-2005

LEGEND:

● PROPOSED SAMPLE LOCATION

SCALE

10 5 0 10 FEET

DRAFT

FIGURE 1. 20600-PSP-0013-04